Towards a Design Framework for Legitimate Public Private Partnerships

A General Approach Applied to Innovative Renewable Energy Infrastructures

Michiel A. Heldeweg and Maurits Ph.Th. Sanders*

This article provides a framework to guide the choice and design of a fitting Public Private Partnerships (PPP), which is applied to a Dutch example of biogas/sustainable energy projects. The framework focuses on ‘legitimate public governance’, merging Beetham’s dimensions of legitimacy (legality, shared beliefs and consent) with three types of governance mechanisms (market, network and hierarchy). This leads to three types of PPP, and six phases of design, allowing governments to perform an ex ante analysis, by which legal form of PPP-type follows PPP-function, while securing and monitoring legitimate public governance.

I. Introduction

In order to achieve a low carbon economy in 2050, the Dutch government, by concluding climate agreements at the national and international level, committed itself to the domestic target of a 16% share of energy consumption from renewable sources by 2020. To achieve such sustainability ambitions, it is dependent on technological innovations in the energy sector. As one of various strategies towards enhancing innovation, the Dutch government initiates policy projects in partnership with private parties. This article explores the design of legitimate public private partnerships (PPP) as a public interest tool to enhance innovation, using the challenge of innovation in renewable energy provision as its core example. We propose a general framework, intended to support the design of fitting PPP-arrangements, and apply this especially to projects on renewable energy utilities.

There are various examples of renewable energy projects in the Netherlands. The collective purchasing of solar panels and offshore windmill parks is one attracting considerable interest. Another important category of initiatives is that of projects in the field of biogas. Such projects demonstrate the need for policy tools to respond to the dynamics in innovation processes. To this end we present an ex-ante analysis framework relevant to the selection and design of appropriate and legitimate forms of PPP. These forms are illustrated by distinct types of organisations and policy-arrangements which make them

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appropriate for renewable energy utility projects. The analysis framework is presented as a phased plan, which underpins the proper selection of PPP-type and legal form in the context of projects on renewable energy utilities. Ultimately this is a matter of balancing between legal-administrative values of effectiveness and legitimacy. In this article the focus is on legitimacy, although of course we realize that there are possible trade-offs and there is reciprocity in that legitimacy and effectiveness are necessary but insufficient conditions to each other’s successes.

In this article we will first briefly analyse the changes in the Dutch energy sector in the light of the policy ambitions of the European Union, against the backdrop of the public interest concept of the Dutch Scientific Council for Government Policy (WRR). The results of the analysis are presented in section II. In section III we reflect on the changes in the Dutch energy sector and in section IV we argue why an ex-ante analysis framework is relevant to the selection and design of appropriate and legitimate forms of PPP suitable to Renewable Energy Infrastructure projects. At this we build upon the work of Beetham6 on the legitimacy of public power. The ex-ante analysis framework is presented in section V.

II. Changes in Dutch Energy Governance

1. The Ownership Unbundling of Distribution and Supply Companies

Recent decades have shown major changes in the energy sector in the Netherlands.7 One of the most striking changes is the splitting of the integrated energy companies; separating the network activities from the production and supply activities.8 These activities were subsequently placed in newly established, dedicated organisations, based upon original public enterprises, but henceforth coordinated autonomously. Firstly, network companies were set up. These companies are responsible for the distribution activities and are regulated hierarchically within the realm of government.9 Secondly, production and supply companies were established. The activities of these latter organisations have been placed at arms’ length from government (generally also by selling government shares), so that the operations of the production and supply companies take place in the ‘free’ energy market.10

2. Public Interest Concept

The concept of public interest is important to understanding legitimacy considerations behind these energy sector reforms.11 In its report, “The safeguarding of public interest”, the Dutch Scientific Council for Government Policy (WRR) makes a distinction between three types of interests: (i) individual, (ii) societal and (iii) public interests.12 Whilst individual interests are regarded as of a personal nature, the WRR defines societal interests as interests relevant to society as a whole — such as energy, but also food, transport, education, (health)care and others. According to the WRR, a societal interest becomes a public interest if and when government commits itself to (the protection of) a particular societal interest on the basis of the conviction that this interest will not otherwise be properly served (or safeguarded).13

From the standpoint of liberal democracy, it is important to note here that the mere fact that a societal interest, such as renewable energy supply, is regarded (by government) as a public interest, does not exclude the possibility for private persons to (continue to) spontaneously (and without obligation) involve themselves with renewable energy as a societal interest. Matters with a public interest do not (automatically) belong to the exclusive zone of government, but one may expect that private involvement will be

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8 Brunkskeet (fn. 7), Baarsma/De Nooij/Koster/Van der Weijden (fn. 7).
9 Brunkskeet (fn. 7), Baarsma/De Nooij/Koster/Van der Weijden (fn. 7), Kist/Crone/Hudig/Ketting/De Swaan/Willems, Publiek aandeelhouderschap energiebedrijven, Ministerie van Economische Zaken, Den Haag 2008.
10 Brunkskeet (fn. 7), Baarsma/De Nooij/Koster/Van der Weijden (fn. 7), Kist/Crone/Hudig/Ketting/De Swaan/Willems (fn. 9).
13 WRR (fn. 12).
affected by government (regulation), as may be the case when in pursuit of renewable energy objectives, government advances certain resource alternatives over others.

3. Energy Sector Reforms

The aforementioned energy sector reforms are the result of various political stands on related public interests. A number of parties represent important positions in the sectoral debate. First of all, the European Commission is important as it may be regarded as the leading protagonist of the liberalisation wave in the energy sector. The Commission puts the public interest of a properly functioning, internal/common energy market, and accompanying consumer protection, at the forefront of its policy choices underlying the European liberalisation directives. In the energy market the consumer shall have a proper freedom of choice. As a result the consumer may not be dependent on just the one provider (a monopolist) of energy. Instead the buyer of energy should be able to make a comparison between different producers and suppliers, to then select the provider that (best) meets his energy demand. The main objective is that the price mechanism steers buyers and energy companies towards an optimum transaction.

Despite the European impetus to liberalise utility sectors, such as the energy sector, the degree of liberalisation and the approach used, do in practice differ from one Member State to another. The implementation of the Commission’s policy is thus subject to ‘the powers that be’ within the Member States, especially the positions of national authorities, such as Ministers of Economic Affairs or of Energy (and other utilities) and the national Parliaments. In the Dutch case, especially members of parliament feared that the public interests of security of supply and of the quality of the distribution network would come under pressure if the activities of integrated energy companies were to be organised independent from government. Consequently, the outcome of the political debate was that these public interests were to be safeguarded by separating the energy network management, both economically and legally, from that of the production and supply of energy.

III. Upon Reflection

Especially in the field of biogas, there seem to be promising possibilities to respond to the climate change challenge. Hence, the Dutch province of Overijssel decided to initiate the production and supply of biogas and/or green gas to consumers (households and/or businesses). A regional energy infrastructure, called a ‘Green Gas Hub’, was considered vital to make this work. In a Green Gas Hub, producers of biogas, such as pig farmers and market gardeners, supply their biogas to a central plant through a pipe. In this central plant the biogas is upgraded to the natural gas quality (green gas) and the end-product can be fed into the natural gas network, which exists throughout Overijssel (and indeed throughout the Netherlands). Similar initiatives are in the provinces Friesland and Gelderland.

Clearly, government has an active role to play in both the initiation and the execution of such projects. This role-perception is in keeping with the outline of the “New energy for the climate” work programme. The work programme speaks of an initiating role for government so that test beds emerge for the application of innovative energy-saving techniques.

Meanwhile, a fundamental question arises in the context of the earlier liberalisation wave in the energy sector. Liberalisation did, after all, have as its consequence that the players in the energy sector were placed at arm’s length of government. How then can the public renewable energy interest still be safeguarded, given that markets and civil networks fail in spontaneously organising (viable) green gas initiatives? How can government be involved to remedy this failure without infringing upon liberalisation? The national “New energy for the climate” work programme proposes to solve this problem through the

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14 Jamash/Pollitt (fn. 11).
16 Jamash/Pollitt (fn. 11). Wilkeshuis (fn. 15).
17 See, applied to the Dutch case, Wilkeshuis (fn. 15).
use of public private partnership (PPP). Unfortunately, the responsible Ministry of Housing, Spatial Planning & the Environment (VROM) does not provide any further elaboration on this line of thinking.

This is where this article may be relevant as it aims to assess the various governance opportunities and pitfalls of PPP, and to make suggestions as to a proper appraisal of dedicated PPP-governance arrangements. The proposal of an ex-ante analysis framework is key to this attempt. The focus of this framework will be on legitimate public governance, as our point of departure lies with the public renewable energy interest and the related use of government resources and influence (legal and otherwise). Clearly, the mere fact that PPP is – as it is in the Netherlands – ‘officially’ proposed by government as a means to effectively realise innovative renewable energy infrastructures, does not in itself provide a sufficient underpinning of legitimate PPPs in coordinating innovative action in the energy field. In this day and age of governance, the complex interactive nature of PPP calls for a more substantive analysis of the logic and possible merits of PPP arrangements, also when the focus is limited to legitimacy.

Of course, in a broader perspective, ‘there are more roads that lead to Rome’. Governments may use other instruments besides PPP, such as private involvement in public enterprises and facilitative regulation, such as by subsidies, to involve private parties in service of public interests. Often, instrument combinations are made, and so PPP may be combined with public enterprises and with regulation. In this article however, for theoretical purposes, we will pursue a ‘stand alone’ approach.

In the following we first give a brief description of the concept of ‘legitimate public governance’. Subsequently, we will name the main steps towards a proper choice of PPP formats and clarify, also by providing practical description, which types of PPP can be employed especially towards renewable energy objectives.

IV. Legitimate Public Governance

1. Legitimacy

To arrive at a concept of ‘legitimate public governance’, we chose to merge specific approaches on both the legitimacy of public authority and the notion of public governance as coordination of transactions involved in creating and allocating public goods, works and services.

In the public administration and public policy literature, the concept of legitimacy has received considerable attention from various authors. Beetham’s view on legitimacy of the public exercise of authority is especially useful our needs. Firstly, it provides a cross-disciplinary perspective (encompassing normative and socio-empirical disciplines). Secondly, Beetham’s three dimensions of legitimacy may be used, not only to ex-post empirically test a given exercise of public authority, but also to serve as stepping stones of an ex-ante analysis framework, leading to a proper – legitimate – choice and design of the applicable governance arrangement, such as PPP.

The three dimensions, which together constitute the – cumulative – conditions for legitimate exercise of public authority, are: 1. legality; 2. shared beliefs; 3. consent. Table 1 presents a summary:

Dimension 1. (‘legality’), requires legally valid exercise of authority, in accordance with written and unwritten rules of law. Such rules make (autonomous) social regulation possible, given government’s adherence to law, under the ‘rule of law’.

Dimension 2. (‘shared beliefs’), requires that binding rules are intrinsically justified. They should be
Table 1: The three dimensions of legitimacy

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<th>Criteria of Legitimacy</th>
<th>Form of Non-legitimate Power</th>
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<tr>
<td>1. Conformity to rules (legal validity)</td>
<td>Illegitimacy (breach of rules)</td>
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<td>2. Justifiability to rules in terms of shared beliefs</td>
<td>Legitimacy deficit (discrepancy between rules and supporting beliefs, absence of shared beliefs)</td>
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<tr>
<td>3. Legitimation through expressed consent</td>
<td>Delegitimation (withdrawal of consent)</td>
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based on ‘normative principles’, expressive of shared value perceptions concerning the citizen-government relationship (regulator and regulatee respectively). In turn these principles need justification either from their origin (vested in some accepted ‘societal source’, such as parliament) or from their content (vested in substantive convictions, such as on distributive justice).31

Dimension 3. (‘consent’), refers to voluntary consent of the subordinate(s) with the political exercise of power by the dominant actor,32 as by democratic mechanisms.33

These dimensions are traceable not only in governance contexts where government operates hierarchically – such as by compelling energy producers by law to apply (a certain percentage of) renewable resources. They also apply in other governance contexts where government is involved in the explicit pursuit of the public (energy) interest. Firstly, when government builds on market transactions, such as in a ‘green energy criterion’ used in tendering for public transport, to achieve its objectives. Secondly, when social network interaction is employed, such as in negotiating with housing corporations and other NGOs on green energy initiatives in urban areas. This broad use is in keeping with Beetham’s claim that his approach is universally applicable and that, of course, it can be specified, “...to assess the legitimacy of power in its context, i.e. against the norms and values of a given society.”34

2. Types of Coordination

Thus government can, as with determining how to pursue its renewable energy policy objectives, choose between three types of coordination, as transaction mechanisms by, or arenas in which public goods, works and services are created and allocated: (i) market, (ii) network, or (iii) hierarchical coordination.35

Market coordination is useful to government policies especially when government wants to match effectiveness with efficiency, through a voluntary exchange between supply and demand. Government regulation may secure that, for example, energy producers must use renewable energy, which then causes these producers to approach the energy resources market and enter into transactions with suppliers. Ideally, these transactions follow from a comparison between competitive alternatives, based on full information and with the aim of optimizing welfare.

Hierarchical coordination (in the public realm)36 exists when public interests are pursued by government control. Subordinate private citizens and public parties operate under regulatory command, compelled to act in accordance with given norms or technical requirements, functional to a public interest objective.37 Effectiveness and efficiency are served by the ability of unilateral (‘top-down’) government ac-

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31 Heldeweg/Sanders (fn. 4).
32 Beetham (fn. 6), p. 91 et seq)
33 Heldeweg/Sanders (fn. 4).
34 Beetham (fn. 6), p. 21.
36 Private firms often include hierarchical coordination (as well as private property regimes may do in owner-user relations), but lay outside this article’s scope.
37 This description allows for regulation, not only by legal incentives (strictly binding rules), but also by economic incentives (e.g. taxes, subsidies), ethical incentives (e.g. openness, public information) and technical incentives (public works & infrastructures). See Rhodes (fn. 21) for a clear positioning of government (hierarchy) against governance – although we consider government/hierarchy as a mode of governance.
tion, such as in prohibitions or commands in the field of (non) renewable energy resources or energy efficiency.

Network coordination is useful to government by providing a setting in which the participating autonomous actors try to reach agreement on a strategy to achieve a policy goal. It is not the price mechanism that controls network transactions, as is the case with the market, nor unilateral authority, as in a hierarchical setting. Instead, it is the consensual interaction between equal parties, participating towards a shared opinion and shared or aligned action, given a mutual dependency of participants in – optimally – reaching a shared objective. As government, for instance, seeks to promote innovative renewable energy projects, it may want to join forces with societal actors who share in the desire to get such projects underway, but fail to do so by themselves.

3. Cross Referencing

We may now combine Beetham’s view on legitimacy with the above three types of public governance, involving government in pursuit of public interests, such as that of renewable energy – together presenting a framework of legitimate public governance.

The cross-sections that we yield are basic governance arrangements, as optional types of transaction–actor combinations, and related conditions. In this article we limit our analysis to the legitimacy perspective of these governance arrangements. This means that we do not elaborate on the aspects of comparative effectiveness and efficiency, which each arrangement may provide, given the nature of the relevant policy area – such as that of renewable energy. Our scope is limited to the analytical perspective as presented in Table 2.

Of course these three types of coordination are ideal types. Furthermore, and especially with the examples given, government may choose different forms to shape its use of any of the three possible types of coordination. These forms may relate especially to the use of different types of legal personality by which government operates within these mechanisms. Of these there are many, both as public law types (e.g. parliaments, ministers, municipalities, quangos) and of private law (e.g. associations, foundations/trusts, enterprises). Clearly, apart from aspects of effectiveness and efficiency (which are not addressed here as a positive appraisal of both effectiveness and efficiency is theoretically presumed), the aspect of legitimacy, as conceptualised within a certain type of coordination, may either necessitate or exclude certain legal forms, such as a public body rather than a private enterprise as sovereign legislator. Similarly, as we will show in the below, the possibility of a PPP approach exists within each type of coordination, but will come in different forms of PPP, which in turn should match (besides considerations of effectiveness and efficiency) legitimacy requirements. As we stated in the above (at the end of paragraph 3), in practice other aspects, such as that of public service regulation (also related to markets and networks), may come into play and of course will influence upon choice and performance of PPP’s, also in terms of legitimacy – but we leave these ‘contingencies’ aside here.

V. Ex ante Analysis Framework

Against the backdrop of this analytical perspective we can now present a concise framework that en-
ables an _ex ante_ analysis, providing a guideline to choosing and designing the proper and legitimate public governance arrangement in the form of a PPP-type of collaboration, as in the (Dutch) field of renewable energy initiatives.

The framework consists of a simple phased plan with six consecutive steps:

(i) establishing the public interest (i.e. is there a role to play for government and if so, in what substantive terms?);

(ii) a systemic choice of legitimate public governance (i.e. which normative stance is taken on the general method of coordinating transactions relevant to the particular public interest at hand?);

(iii) considering operational risks (i.e. what are the chances and negative effects of failure of the preferred method of coordination in the context of specific projects?);

(iv) choosing the PPP type (i.e. which type of PPP would fit best with the preferred/given method of coordination and meanwhile be able to avoid or remedy operational risks of failure as identified in iii)?;

(v) choosing the legal form (i.e. which legal form is most suitable to make the PPP perform within the relevant method of coordination and contribute to its proper working in the transactions relevant the PPP’s purpose?);

(vi) putting controls into place (i.e. which control mechanisms are necessary to avoid or address residual operational risks, especially as caused by rash and opportunistic behaviour?)

1. Step 1: Establishing the Public Interest

In advance of a government conclusion to apply PPP, it must decide whether it has any role to play in the promotion or protection of a societal interest, such as renewable energy utilities. As follows from the above discussion on different types of interests, such involvement is not necessary _per se_. Many societal interests are in fact taken care of without (dedicated) government involvement. However, especially innovative and sustainable quality and universal accessibility of public utility services can be problematic. Government may have to step in to provide safeguards – i.e. on the basis of the conviction that justice might otherwise not be fully done to the underlying societal interest concerned.

One may argue that in such cases we witness forms of market or network _failure_, as markets and/or networks seem _incapable_ of adequately providing for – proper quality of and access to – these utilities. Consequently, on the basis of political assessment, argumentation and debate, government can decide to make the involved societal interest object of its policy, thus labelling it (also) as a public interest. As we have seen in the above, in the Netherlands the societal interest of proper renewable energy utilities has acquired this status by virtue of the "New energy for the climate” programme.

The (pre-eminently political) decision to consider service to a societal interest to be a public interest should be distinguished from the decision on how government is to perform its task and should be held accountable. We need to, in other words, separate the ‘what’ (may be considered a public interest?) from the ‘how’ (to promote and protect a public interest). To proclaim, for instance, investment in renewable energy utilities to be a public interest, is not to say that only government may decide on this policy and only government may be involved in the execution of it. First of all, setting the energy policy may be a subject for which government seeks counsel with industry and NGOs. Secondly, executing energy policy may also involve bringing in private parties. Of course, the final public responsibility for both policy and execution rests with government, but that does not exclude _express_ arrangements made to facilitate private party involvement – quite apart from spontaneous private initiatives.

Clearly, these express arrangements require careful consideration because the mere fact of government involvement is a response to existing market and/or of network failure – as in the Dutch case of (not) establishing renewable energy utilities. Given this failure, government cannot (or no longer) expect unregulated private party participation to spontaneously deliver all the necessary input. This begs the question if, leaving alternatives aside, such participation is feasible through PPP and if so, how this in-

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39 [WRR (fn. 12), p. 20.]
40 Ibid.
41 Ibid., p. 21.
42 Ibid., p. 21.
43 Ibid., p. 21.
44 Beecher (fn. 23).
put can be coordinated to provide its highest added value.

Consequently, we are faced with a two-step preliminary consideration which is discussed in Steps 2 and 3 (as a prelude to the choices of PPP-type, form and control in Steps 4, 5 and 6). ‘Step 2’ will be about considering options in terms of modes of legitimate public governance, whereas Step 3 will be concerned with specific innovation risks related to particular modes of governance.

2. Step 2: The Systemic Choice of a Legitimate Mode of Public Governance

Where government takes final responsibility for the public interest of service to a particular societal interest, such as setting up renewable energy utilities, this will be in the face of given or expected failures in coordinating transactions relevant to a certain interest. A government’s prime decision will have to be on which main mechanism of (or arena for) coordination seems most suitable, the present or perhaps another.

If the present is still considered best, this expresses the belief that failures of this system can be (relatively best) remedied by operational government interventions, regulatory or institutionally (with PPP as an example of the latter form).

Alternatively, government interventions amount to a systemic overhaul (or creation, if no practice exists, as with trading of CO₂ allowances), such as we witness in privatization or nationalization, for instance of energy production and/or supply. If and when government intervention is limited to an overhaul, it is still likely that government will want to safeguard success by introduction of additional regulatory and institutional constraints and drivers. PPP may be one of these (of an institutional kind), but we need to tread with care and leave that decision to the next two Steps (3 and 4) and focus on the general type of coordination first.

As we saw in the above, there are three main and ideal type forms of such coordination or modes of public governance: (i) market, (ii) network and (iii) hierarchy.

The distinctive characteristics of each of these modes need to be considered in terms of the kind of legitimacy that they may provide – as this is our focus here. For each mode the specific configuration of legitimacy characteristics needs to be evaluated as systemic opportunities or positive indicators to secure acceptance for a type of coordination as a means to coordinate certain public services. By contrast, we regard Step 3 as rather being about operational concerns or warnings, listing negative indicators, following the risks at possible governance/coordination failures.

In comparing and considering systemic coordinative opportunities, the liberal State doctrine provides as a point of departure by which he concern over renewable energy should ideally be a (‘mere’) matter of its promotion and safeguarding as a societal interest by private parties. If and when (because of market and/or network failure) this interest becomes a public interest, government would still primarily have to look for ways by which this concern could primarily be taken up with private party involvement through regulated market or network coordination. Only, ultimately, when all else fails, a public interest – as that of renewable energy – may become a matter of exclusive government policy formulation and execution, coordinated by hierarchy.

As we have, in Step 1, labelled renewable energy as a public interest, we must now come to a comparative assessment of governance modes, as expressed by their distinct sets of coordinating mechanisms and accompanying value-orientations – without prejudice to hierarchical solutions.

The basic thinking in market coordination is that economic agents acting rationally on the basis of full information (the price of an economic good, such as energy) make an assessment leading to an optimum outcome (efficiency). This outcome demands a perfect market, consistent with two basic value-characteristics: (i) ‘openness’ (as in transparency of information) and (ii) fair competition (providing an ‘exit’ option, to open bargaining with others). In legal terms these demands may be served by rules of consumer protection and fair competition. As to the latter, PPP applied in markets comes with a special twist, because in tendering or subsidising, government must avoid disturbance of markets as a ‘level playing field’ (compare, for example, the stringent EU rules on tendering and State aid).45

Network coordination is described in public administration as a transaction mechanism enshrined

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in more or less stable patterns of voluntary relationships between mutually dependent actors formed around policy issues or policy programmes.46 In such a situation, policy is the outcome of effective communication. This type of communication requires, firstly, inclusion and general acceptance. Indeed, all relevant interests within the network must be represented and equally respected, and policy outcomes reached are accepted by all participants (not necessarily as consensus on all outcomes, but certainly on principle). Secondly, effective communication implies reciprocity, so that participants act accepting that direct consideration may not always be provided. It goes without saying that this can only work if ‘inclusion’ is sufficiently upheld.

Hierarchical coordination is based upon the exercise of public authority by government. Under the Dutch doctrine of public authority, for instance, three clusters of values are considered vital.47 Firstly, ‘democracy’, as citizens’ voice over government power (with the primacy of general people’s representation – over ‘participation’), subsidiarity/ decentralisation, and openness. Secondly, ‘liberal rule of law’ as the separation of State and society, the primacy of civil autonomy, adherence of government to the law, separation of powers, legality, fundamental rights, legal protection, and embeddedness in the international legal order. Thirdly, ‘servient government’, as government does not exist for itself but for social justice for all, and should pursue this objective effectively and efficiently.

In the earlier perspective of legitimate public governance, we can now merge the values listed in the above to the three dimensions as proposed by Beetham. Thus we yield three modes of (ideal type) ‘legitimate public governance’, which provide a normative beacon to government’s choice in choosing the proper type of coordination as a context in which to possibly, additionally apply (a type of) PPP. Without further elaboration, these modes are summarised in Table 3.

### 3. Step 3: Considering Operational Risks

As a next Step, the systemic choice of a method or type of coordination as outcomes of the afore analysis requires a further analysis as there may be residual risks at failure, related to the characteristics of the specific public interest (e.g. renewable energy), also considering technical aspects (e.g. the use of a grid), organisational aspects (i.e. the ‘action arena’ and players within), and aspects concerning policy principles (e.g. universal and equal access). Each of these aspects may lead government to conclude that,

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47 Heldeweg/Sanders (fn. 4).
although on a systemic level the proper governance method of coordination is in place, ‘operational remedies or support’ may be needed to overcome residual risks of failure in specific avenues or projects relevant to the public interest (e.g. of setting up renewable energy utilities).

Ideally, these remedies or this support, by regulation or by institutional arrangements such as PPP, can adequately tackle such risks at ‘mere’ operational failure. Possibly though, the systemic choice (of Step 2) has to be reconsidered, as wisdom requires that government also compares the risks or ‘transaction costs’ of accompanying a chosen mode of governance coordination with a particular operational PPP, with those of other governance mode and PPP combinations.

For renewable energy, a particular factor in this operational equation and comparison will be the role of infrastructure/grids (as aspect of its ‘technical nature’), the multi-level and multi-actor governance and related mixtures of interests (as aspect of organization), as well as reliability and universal access (as aspects of policy principles). Ultimately, the comparison of possible coordinative project strategies entails that the chosen solution, such as of a particular type of PPP to remedy residual risks of failure, should not give rise to other risks at failure, typical to its own particular nature.

In more general terms, this choice of coordination mode should come with the realisation that any form of coordination in innovative policy projects, such as on renewable energy, involves the risk of a specific type of failure, as already referred to in the beginning of Step 2 (on systemic level) and relevant in this Step on an operational level (of actors involved in project related transactions). The risks of failure are typically related to different modes of coordination: (i) market failure, (ii) network failure and (iii) hierarchical/government failure.48 In practice these categories of failure in innovative policy projects can express in a multitude of ways, reaching way beyond the descriptive scope of this article. Table 4 suffices with giving a number of examples of each type of failure.

Failure to innovate and move forward in areas such as that of renewable energy not only renders policies ineffective, but also ties in with legitimacy. Pro-actively seeking stronger legitimacy (in society as a whole and amongst participants – especially in terms of shared beliefs and consent), may be a tool in improving chances at success. Retrospectively, failure may give rise to critical (societal) comments and a loss of trust in all or some of the participants’ willingness to secure success, and especially of government’s ability to deliver upon commitment to the public interest (and its choice of governance mode).

In this respect, the above (innovation) risks also attest to the need for ex ante attention to the operational ‘alignment’ of actor interests within the PPP arrangement. Furthermore, the public interest is key to government’s involvement in PPP – as otherwise (in a liberal State) there simply would be no legitimate place for government in the PPP arrangement. As a consequence of this premise, ideally (to ensure operational ‘coordinative optimality’) the interests of private parties to a PPP must sufficiently and positively align with this public interest. If not, (non) actions of participants may become mutually counterproductive and the collective result is likely to be sub-optimal (if not worse). We do not purport that alignment requires a full match or indeed identification

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Table 5: Types of PPPs

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<tr>
<th>Characteristics of functioning</th>
<th>3 Types</th>
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<td></td>
<td>Market-PPP</td>
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<tr>
<td>Objective of collaboration</td>
<td>Efficient transactions</td>
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<td></td>
<td>Provoke useful participation</td>
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<td></td>
<td>Legitimate decision-making</td>
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<td>Internal relations between actors</td>
<td>Calculative coordination by principal-agent relations</td>
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<td>Strategic coordination by participation</td>
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<td>Unitary coordination by shared powers &amp; responsibilities</td>
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<td>Results of collaboration (output)</td>
<td>Contractual set of performance relations</td>
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<td></td>
<td>Convergence of organisational behaviour</td>
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<td>Sequence of decisions with public authority</td>
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<td>Intended societal effect of results (outcomes)</td>
<td>Steering behaviour by contractual obligations</td>
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<td></td>
<td>Steering behaviour by strategic coordination</td>
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<td>Steering behaviour by command or prohibition</td>
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– if this would even be theoretically and practically possible or feasible – but interests should match in as much as is necessary to arrive at a common or shared strategy for (involvement in) the policy project at hand. Meanwhile, it should be kept in mind that the innovative nature of a project poses inherent risks and may reveal (financial and reputational) vulnerabilities of participants, which make it all the more important that alignment of interests is secured. Further, we believe that the success of alignment (leading to a shared strategy) will correlate, also in terms of reciprocal expectations, with the mode of governance/coordination mechanism upon which PPP is applied, and consequently (see Step 4) to the type of PPP that is chosen.

4. Step 4: Choosing the PPP Type

The two previous (systemic and operational) considerations (of Steps 2 and 3) should lead to an alignment enshrined in a proper choice of, not only the mode of governance/coordination, but also the corresponding type of PPP, fit to act within the mode of governance and suitable to adequately respond to residual risks of failure. These types of PPPs list as three distinct governance-actor arrangements, involved in the performance of different types of transactions, typical to markets, networks or hierarchies; according to their characteristic mode of coordination. In general terms, we define a PPP as a legally structured partnership between one or more public authorities and one or more corporate entities governed by private law, which focuses on the development and execution of a common strategy for the realisation of a policy project. The above implies that such a PPP can be applied within the three alternative modes of coordination, if and when its basic organizational characteristics fit basic coordinative characteristics – as, by analogy, organisms need to fit with their habitat. For this reason we distinguish the following types of PPP: ‘PPP for market coordination’ or ‘Market PPP’, ‘PPP for network coordination’ or ‘Network PPP’ and ‘PPP for hierarchical coordination’ or ‘Authoritative PPP’. Table 5\(^9\) shows a summary of these PPP types, along four functional characteristics.

The objective of the Market PPP is about the execution of or strategy to put a policy project into effect on the basis of a (mutually beneficial) economic exchange against the background of separate public and private positions. This leads to PPP as an operational configuration, as, within the field of renewable energy policy initiatives, in the construction of durable utilities, such as wind farms for energy generation or smart grids for energy distribution.\(^{10}\)
ernment formulates the project (possibly upon prior ‘private hints’) and then the phases from designing and building the construction or infrastructure through to maintenance and/or operation are put out to tender, as in the form of a DBFM(O) contract. Thus government may, as a ‘launching customer’, use PPP in a field where, otherwise, market-players themselves would not spontaneously take up a sufficient number of projects or be successful in their promise. One could therefor argue that this type of PPP is a means of government remedying market failure in the renewable energy field.

In the ‘Network PPP’ there is partnership in a voluntary association, with the aim of formulating a joint strategy, such as when a municipality consults with retailers, housing corporations and electricity network operators about improved energy-efficiency of a given town centre, or when a foundation is established in which government, industry and NGOs discuss strategy to bundle knowledge towards enhanced green gas deployment. Significantly, in this type of PPP, public and private parties retain their own tasks, powers and responsibilities, so that implementation of the strategy by formal decisions to this effect remains a matter for each of the parties involved. One could consider this type of PPP a remedy to the inadequacy of spontaneous private party networks or to unfortunate exclusion of relevant parties, but also as an arrangement to overcome problems that markets and governments face in getting new initiatives underway by creating a stronger convergence in the renewable energy momentum.

Finally, we distinguish the ‘Authoritative PPP’, which is underpinned by partnership at the strategy formulation level, but which main (or indeed exclusive) task is taking decisions with public authority, binding to citizens, based in a legal power attributed to the PPP as a legal entity. As an example in the renewable energy sector, we could think of ‘energy funds’, operating as ‘participation quangos’. Such partnerships of representatives or appointees from government, industry and NGOs operate as one and as such perform legal acts with public authority. Thus subsidies, vouchers and guarantees are provided, especially to promising new initiatives that would otherwise not surface – supported by a fund financed by government, but possibly also by private parties involved. Similarly, one could think of a PPP certification agency following a public law regulation on energy efficiency, which is governed by a board, composed of public and private party representatives or appointees.

5. Step 5: Choosing the Legal Form

Once at ‘Step 4.’ the choice of governance/coordination and corresponding PPP type has been made, a decision as regards its legal form is opportune. Different arguments play a part in the assessment process towards a choice of legal form, which also differ from one situation (such as the type of policy field) to another. The participants in a legal form may, for example, attach importance to limitation of liability or to tax transparency. In addition to participants, restrictions also follow from regulation, increasingly on a multi-level basis such as by EU rules. Together, these considerations guide the choice of a proper legal form.

In the most general legal terms, a distinction may be made between three types of legal persons: (i) associations – rooted in personified alliances, where original long-term contractual relations are transformed into collective decision making and membership; (ii) corporations – rooted in personified partnerships, where joint ownership of one or more objects and/or capital goods, are transformed into collective decision-making and shareholderhip; (iii) foundations – rooted in personified funds, where ownership of a collection of assets devoted to a specific objective is transformed into collective decision-making and an objective purpose. These distinctions operate throughout the public and the private (law) realm, but do not exclusively correspond with the ideal type coordination mechanisms of markets, networks or hierarchies – although corporations best fit markets, and associations and foundations are most suitable to networks and hierarchies. Similarly PPP types may be moulded into all of the basic legal forms. Clearly, further analysis reaches well beyond the scope of this article – given that, in our opinion, the nature of the renewable energy field does not point at a particular choice in legal form.

51 Ibid.
52 Ibid.
53 Ibid.
54 Ruter, Types of institutions as patterns of regulated behavior, Res Publica 10 (3)/2004.
The same may be said about the possibility of organising PPP other than in a legal personality, but by entitlement (such as in property rights, such as in land), or by obligation (such as following contractual agreement). In reference to the above description of the ‘Authoritative PPP’ we can rule out the possibility of a form other than as a legal entity, given that it can act only upon a (general but) personified legal power and accompanying personal accountability.

Consequently, Table 6 merely aims to present the most basic elements of choice.

6. Step 6: Putting Controls into Place

This is not a perfect world. That was clear when upon Step 2, making a systemic choice of a legitimate mode of public governance, we considered it necessary to next take step 3, and consider operational risks at systemic failure, and subsequently, in Step 4, choose the PPP-type that would remedy those risks. It may seem as if we have by now ‘closed the gap’, but alas. Legitimacy is about more than ideal-type modes of governance and choice of legal form, it is also about if and how organizations (and the people and systems within) actually perform – in reality. This performance may not agree with the criteria of legitimacy and (perhaps as a result) of effectiveness as enshrined in the design of the particular type of PPP. Organizations and persons within may respond differently to the relevant incentives (e.g. placing private concerns before the agreed public interests) or may make mistakes upon insufficient or incorrect information or knowledge or flawed intelligence or be confronted with failing technical systems. Thus there remains a chance that, while in operation, opportunistic or misguided strategies and decisions, or technical failure, lead PPPs to not or no longer act legitimately and/or (as a result) effectively.

Such risks may however be avoided, mitigated and even remedied by putting controls into place from the onset; either as part of the PPP design (‘internal controls’), or as a matter of regulating (part of) the institutional environment in which PPPs are to operate (‘external controls’).

As to internal controls, the most basic concern is to avoid that manager’s interests or mistakes deflect a legal person’s performance from its leading interest (and corresponding objectives/mission/task). While looking at the three basic legal forms distinguished in Step 5, internal controls should primarily protect: the shareholder interests in corporations, with a focus on competitiveness (e.g. through a supervisory board of directors); the membership interests in associations, with a focus on service to collectively determined objectives (e.g. membership meet-
ings or, when public, a parliament); the established (non-personal) interest in foundations, with a focus on purposive deployment of assets (e.g. through a stakeholder committee or a parliamentary committee). In all cases, in as much as these interests call for controls on efficiency (and effectiveness) a controller or audit function may be useful.

External controls are about upholding basic interests and rules, characteristic to an institutional environment, in the face of opportunistic and imprudent strategies and actions: of private interest in efficient market-transactions, through controls on compliance with rules on fair competition and consumer protection (e.g. regulators and arbitration); of concerted interest in collaborative network-transactions, through controls on compliance with rules on social inclusion and professionalism (e.g. oversight bodies and courts); of public interest in authoritative government-transactions, through controls on compliance with rules on proper public service and citizens’ freedoms (e.g. inspectorates and courts).

The hybridity of PPPs is about introducing incentives and attracting resources to an environment, which does not naturally have an appeal to them, but without them has difficulty in delivering certain goods or services, such as sustainable energy. Adding a private interest to a public context (by Authoritative PPP) or a public interest to a private context (by Market- or Network-PPP) is seen as a means to create better opportunities for initiating or facilitating innovative (sustainable energy) projects.

Of course this deliberate mixture of interests and institutional contexts challenges ideal-type internal and external controls. Suddenly, the design of controls needs to also address possible concerns over ‘outside interests’ introduced by PPP (at Step 4) as a remedy against residual risks of failure (identified in Step 3) – such as a public service interest in a market environment, a commercial interest in a network environment, or a voluntary societal interest in a government environment.

Of course, meanwhile ‘inside interests’, enshrined in the institutional environment in which a PPP is to function, may not be infringed upon. For else, instead of remedying failure, the PPP would indeed cause failure – such as when government involvement in a Market-PPP would distort competition in a market environment.

The next and final table (no. 7) gives some examples of possible safeguards relevant in the design of internal and external controls for PPPs, both relevant to outside and inside interests.57

Finally, although the above control concerns are primarily about legitimacy, they may also touch on effectiveness. Legitimate performance, through ensuring that inputs to decision-making reflect relevant interests, and commitment to achieve outputs promised upon decision-taking, may also impact upon effectiveness, not in the least as such performance enhances chances of all interested parties to be supportive of a PPP’s success. Such support is of paramount importance to properly respond to (inevitable situations of) perverse interests, inadequate information, intelligence or technical systems, posing a risk to performance of a PPP, both as a matter of legitimacy and effectiveness.

VI. Conclusion

Design of legitimate PPP, such as on innovation in the field of renewable energy, is a complex challenge. A challenge that may be called for, as we cannot (always) expect private parties, within markets and/or civil society to by themselves and spontaneously, provide timely innovative solutions (and commit to them). In turn, government, as ‘driven’ by the public interest in renewable energy, cannot be expected to deliver such solutions on its own merit.

Collaboration by PPP is an important option to overcome mutual ‘failures’ and get new and innovative projects underway to (further) develop the policy to achieve the technological and practicable breakthroughs that are needed – but to arrange such PPP is not without pitfalls.

This article has focused especially on how government may seek to use legitimate PPPs against the backdrop of renewable energy as a public interest. It shows that different types of PPP may be used to legitimately promote and safeguard public interests and that the choice between these types must be guided by the notion of ‘legitimate public governance’, which in turn requires proper reflection upon the most suited mode of governance/coordination both

57 A more nuanced analysis would show that controls may come in ‘hard’ or ‘soft’ varieties, ‘Hard’ mechanisms are required by law and are binding for the functioning of the PPP (such as approval by the parliament), whereas ‘soft’ mechanisms are not compulsory and of a more social or informal nature (e.g. advice).
on a systemic and on an operational level – which also includes monitoring on effectiveness, as legitimacy is a necessary but not a sufficient condition of good legal governance.

To this end an ex-ante analysis framework has been presented, providing a progressive scheme for making a proper choice of PPP. This analysis framework is built up in six consecutive steps: (i) establishing the public interest, (ii) the systemic choice of legitimate public governance, (iii) considering operational risks, (iv) choosing the PPP type, (v) choosing the legal form, and finally (vi) putting controls into place.

We hope this framework, which is still the subject of further (empirical) research, will prove useful in the design of proper legitimate PPP arrangements – especially in the renewable energy field. The need for innovation in energy utilities deserves a thorough analysis of public-private collaboration – next to or in conjunction with other instruments (e.g. public ownership and regulation) – as government policy tools.

### Table 7: Designing controls

<table>
<thead>
<tr>
<th>PPP-type</th>
<th>Interest</th>
<th>Examples</th>
</tr>
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<tbody>
<tr>
<td>(1.) Market</td>
<td>Public (‘outside’)</td>
<td>Internally: appoint a public interest commissioner</td>
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<tr>
<td></td>
<td></td>
<td>Externally: empower an oversight body/regulator (e.g. benchmarking) or audit office</td>
</tr>
<tr>
<td></td>
<td>Private (‘inside’)</td>
<td>No State aid; retain fair trade and consumer protection; avoid unnecessary bureaucratic checks &amp; balances</td>
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<tr>
<td>(2.) Network (&amp; govt)</td>
<td>Public (‘outside’)</td>
<td>Internally: appoint a public interest commissioner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Externally: organize meeting with parliamentary committee</td>
</tr>
<tr>
<td></td>
<td>Private (‘inside’)</td>
<td>No government dominance on shared decision making; ensure stakeholder participation</td>
</tr>
<tr>
<td>(3.) Authoritative (&amp; firms/NGOs)</td>
<td>Private (‘outside’)</td>
<td>Internally: collective decision-making; controller-function; performance benchmarking (on effectiveness and/or efficiency)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Externally: review of public procurement (courts); stakeholder participation</td>
</tr>
<tr>
<td></td>
<td>Public (‘inside’)</td>
<td>Due process: retain independence and impartiality; avoid regulatory capture; parliamentary and/or judicial control</td>
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