Contractual Arrangements to Enable Bankable Projects

Workshop on Support for Renewable Energy to Enable the Energy Transition
Energy Community Secretariat – 13 November 2019
Andreas Gunst
Bankability - Key Issues

**General Points**

- Type of contract: Physically settled vs financially settled
- Volume commitment: fixed volume/baseload vs. pay as produced
- Compensation of reduced installed capacity or reduced availability, interaction with turbine supply or O&M warranties/guarantees
- Fixed vs. floating elements, market disruption, negative pricing
- Balancing regime and cost allocation
- Delivery point, risk of connection line failure, connection agreement turn down or disconnection
- Environmental attributes transfer and pricing
- Force majeure / change in law generator risk events
- Termination events and termination payment based on market liquidity and ability to obtain a replacement contract
- Credit support and performance assurance
- Reliance on legislation for scheme, governing law, dispute resolution

**Additional EnCom Points**

- State ownership of offtaker and impact on state aid clearance for PPA and credit support and enforceability
- Tenure of connection offers / agreements, trip or turn down risks
- Perception of regulatory risks and intervention, additional requirements on generator force majeure or change in law risk events / deemed availability
- Relative illiquidity of short term markets and impact on termination loss calculation
- Interaction of state support law and changes thereto on validity of the underlying PPA
- Evolving balancing regime
- Adequacy of local law as governing law (lack of comparable cases)
- Investment protection, impact of EU BIT and ECT arbitration limitation on EnCom, EnCom DRC
- EnCom target model of financially settled contracts (CfD) for support and transition issues for PPAs
Physical PPA Structure

Construction Agreement / Turbine Supply Agreement

Generator Credit Support?
(2nd ranking security)

Offtaker Credit Support

Loan Agreement

Direct Agreement

EPC

Balancing Group Responsible

Generator

PPA

Offtaker

Bank
Financial PPA Structure

- **EPC**
  - Construction Agreement / Turbine Supply Agreement

- **Generator**
  - Loan Agreement
  - Route to Market Agreement / Clearing Member Terms of Business

- **Bank**

- **fPPA / CfD Counterparty**
  - Offtaker Credit Support

- **Balancing Group Responsible**

- **fPPA / CfD**
  - Generator Credit Support? (2nd ranking security)

- **Electricity Exchange / Market Operator**
  - Direct Agreement
Availability Guarantee

Pay as Produced

Generator

- Operate and maintain facility to achieve maximum availability and metered output
- Pay liquidated damages in case of a compensation unavailability event
- Unavailability liquidated damages not be payable in respect of metered output not delivered in any season in excess of the seasonal production target

- Minimum availability guarantee provision aligned to the turbine supply and maintenance agreement performance regime.
- Energetic availability is calculated usually on a per turbine basis
- Unavailability liquidated damages are often capped up to a maximum per contract year

Exclusions from unavailable production (including FM, events caused by the offtaker's non-performance, grid related events, maintenance, curtailment requested by the offtaker, environmental site conditions)
Change in Law

**Triggers**

- Renders it impossible or unlawful to give effect to the PPA
- Renders any material matter required to be ascertained under the PPA impossible to ascertain
- Causes the provisions of the PPA to become inconsistent with applicable laws
- Introduces, replaces, modifies or extinguishes any bidding or price areas relevant to floating price calculation
- Introduces, replaces, modifies or extinguishes any scheme which confers benefits (e.g. green benefits, capacity markets)
- Materially and adversely affects the benefit of the PPA to either or both of the parties
Change in Law (cont'd)

### Consequences

<table>
<thead>
<tr>
<th>Regulatory risks intentionally allocated to one of the PPA parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neither party shall be liable for a failure to perform any obligation</td>
</tr>
<tr>
<td>Each party shall try to minimise and mitigate the consequences on the performance</td>
</tr>
<tr>
<td>Negotiation in good faith to preserve economic benefit of the PPA</td>
</tr>
<tr>
<td>Expert determination (in case of failure to agree)</td>
</tr>
<tr>
<td>Scope of amendment (change in price / non-price)</td>
</tr>
<tr>
<td>Termination</td>
</tr>
</tbody>
</table>
### Force Majeure

#### Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure of communications / computer systems preventing delivery / acceptance</td>
<td>Events that prevent delivery or acceptance of energy services, such as failures in communication or computer systems.</td>
</tr>
<tr>
<td>Delivery, acceptance or disregard suspension regarding scheduling</td>
<td>Events that affect the delivery or acceptance of energy services, such as delays due to scheduling issues.</td>
</tr>
<tr>
<td>Suspension, failure or malfunction of the transfer systems</td>
<td>Events that impact the transfer of energy, such as system failures.</td>
</tr>
<tr>
<td>Suspension, failure or malfunction of the certificate registries</td>
<td>Events that affect the certificate registries, such as system failures.</td>
</tr>
<tr>
<td>Non-issuance of electricity/certificates due to a curtailment of the output due to order of a competent authority</td>
<td>Events that prevent the issuance of certificates due to reduced output from a competent authority.</td>
</tr>
<tr>
<td>Labour and material unavailability?</td>
<td>Events that affect the availability of labour and materials.</td>
</tr>
</tbody>
</table>

#### Possible Carve Outs

<table>
<thead>
<tr>
<th>Carve Out</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic hardship and lack of funds</td>
<td>Events that affect the economic condition, such as lack of funds.</td>
</tr>
<tr>
<td>Curtailment of facility due to non-compliance with connection agreements, permits law // mechanical failure from defects, normal wear and tear</td>
<td>Events related to compliance issues, such as mechanical failures.</td>
</tr>
<tr>
<td>Failure to uphold required governmental approval for the operation and maintenance of the facility</td>
<td>Events that affect governance, such as failure to meet approval requirements.</td>
</tr>
<tr>
<td>Lack of materials required to develop, construct or maintain the facility (except where the material lacking is due to an event of FM)</td>
<td>Events that affect material availability, such as lack of required materials.</td>
</tr>
<tr>
<td>Strike, slow down or labour disruptions</td>
<td>Events that affect labour availability, such as strikes or slow-downs.</td>
</tr>
<tr>
<td>Risk allocation for environmental conditions (site and generation)</td>
<td>Events that affect environmental conditions, such as site and generation issues.</td>
</tr>
</tbody>
</table>
# Force Majeure (cont'd)

## Consequences

<table>
<thead>
<tr>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release from obligations, with (generally) no compensation due to the other party</td>
<td></td>
</tr>
<tr>
<td>Release from delivery and acceptance obligations</td>
<td></td>
</tr>
<tr>
<td>Notification and mitigation of force majeure</td>
<td></td>
</tr>
<tr>
<td>Right to refuse electricity / certificates, interdependency of different products</td>
<td></td>
</tr>
<tr>
<td>Long stop date Termination</td>
<td></td>
</tr>
<tr>
<td>Application of insurance proceeds, oftaker right to participate?</td>
<td></td>
</tr>
</tbody>
</table>
Termination Regime / Payments

**Either Party**

'Fault'
- Failure to perform a material delivery or acceptance obligation for electricity and certificates
- Non-payment
- Failure to provide credit support / performance assurance
- Insolvency / winding-up
- Conditions precedent
- Warranties, representations, permit

'Non-fault'
- Force majeure
- Change in law (unless risk assumed by a party as a risk event)
- Non-fault termination of a material agreement

**Offtaker**

- Permit not obtained / expired and not replaced / revoked
- Change in creditworthiness
- Change in ownership
- Breach of concession / development agreement

**Generator**

- Permit not obtained / expired and not replaced / revoked
- Generator breach of a material contract required for generation or delivery (e.g. O&M, connection agreement)
- Failure to achieve minimum capacity or maintain minimum availability
- Change in ownership
- Acceleration of the loan / breach of finance agreement (subject to direct agreement)
Termination Regime / Payments (cont'd)

Generator / Offtaker - Payments

**Generator**

- Offtaker default: 
  - mark-to-market termination amount

- Offtaker has not fulfilled all CPs: 
  - capped loss amount/bid bond

**Offtaker**

- Offtaker FM/CIL: 
  - no termination amount

- Generator default: 
  - mark-to-market termination amount / outstanding debt termination amount

- Generator has not fulfilled all CPs: 
  - capped loss amount / mark-to-market termination amount

**Generator FM/CIL:** 

- no termination amount / insurance proceeds / outstanding debt termination amount (Generator to bear certain FM/CIL risk)
Credit Support

**Generator**
- PCG / BG / LoC not typically provided for physically settled PPAs, may be required for financially settled PPAs
- 2nd ranking securities over assets becoming more common
- May require bid bond / performance guarantee from offtaker to cover development obligations
- MAC – peformance assurance?

**Offtaker**
- PCG, BG or LoC with typically 12 - 18 months of projected electricity payments in liquid markets
- Step-down over contract duration common
- May require trilateral payment support agreement or sovereign guarantee in emerging markets
- MAC – peformance assurance?
EnCom Projects – Stakeholder Challenges

**Investor / Generator**
- Limitation to floating prices, market illiquidity, market disruption
- Availability of connection offers and tenure
- Evolving balancing regime and cost allocation between parties
- Delivery point, risk of connection line failure, connection agreement turn down or disconnection
- Uncertainty on availability and transfer of environmental attributes
- Perception of higher regulatory risks, desire for offtaker or government to take certain risks events
- Unusual documentation (e.g. standard terms)
- Illiquidity of short term market and risk of stranded investments
- Degree of reliance on legislation, investor protection, governing law and dispute resolution
- Implications of financially settled PPAs on EMIR clearing thresholds and MiFID II exemption position for EU investors

**Offtaker / Government**
- Effective bidding on price / negative experience with overcompensating projects
- Capacity to assess non-price terms or conditions to offers, optimising comparability of bids and flexibility on terms
- Limited creditworthiness of national offtakers, limitations on ability to offer state guarantees or alternative payment support agreements
- Commitments of bidders to see projects through to realisation / lock-in of investors until successful operations
- Limited pool for lenders to projects in EnCom jurisdictions, being 'hostage' to bankability considerations
- Implications of legacy contracts
- Budgetary and structural limits to socialisation of higher support costs
- Transition phase in market reorganisation, on-going legislative process
Contacts

If you have any questions in relation to this presentation, please do not hesitate to contact us.

The following slides provide a brief summary of relevant experience in relation to RE scheme design, developing standard documentation for the market or conducting reviews on key market regulatory and design issues.

To find out more about our Energy and Natural Resources sector please visit our website.

We would be delighted to discuss any of this experience in more detail with you.

Natasha Luther-Jones
Global Co-Chair of Energy and Natural Resources
T: +44 333 207 7218
natasha.luther-jones@dlapiper.com

Andreas Gunst
Partner
M: +44 780 271 9480
M: +43 676 8888 1232
andreas.gunst@dlapiper.com
Recent RE Scheme, PPA and Standard Contracts Work

- Advising the Energy Community on a review of capacity market mechanisms in the Western Balkan countries of the Energy Community
- Advising EBRD on the development of renewable energy (wind and solar) tendering schemes and all related documentation for Albania
- Advising EBRD on the development of a renewable energy tendering (wind) scheme for Moldova
- Advising the European Federation of Energy Traders (EFET) on the development of a standard PPA for physically or financially settled transactions (https://www.efet.org/standardisation/cppa/)
- Advising EFET on the updating on the EECS master agreement for the trading of GoOs
- Advising RECS International and EFET on the classification of GoOs and financially settled PPAs under MIFID II
- Advising the Ministry of Energy and Water of the Government of the Islamic Republic of Afghanistan on a tendering scheme and PPA and Project Support Agreement documentation for solar, gas and hydroelectric generation units
- Advising the I-REC Foundation on the development of a global renewable energy certificate scheme (I-REC)
- Advising the World Bank on the design of a renewable energy certificate scheme for Argentina
- Advising a joint venture between a municipality and an infrastructure developer on a floating solar demonstration project in an EnCom jurisdiction
- Advising a Swiss infrastructure fund on the financing of several wind parks in Norway and Sweden on the basis of financially settled PPAs
- Advising a global IT company on the conclusion of financially settled PPAs
Selected Renewable Energy Experience in Europe

WIND EXPERIENCE – EUROPE

BELGIUM
- Visoemo 3 - Phase 3
- Belgian North Sea Wind Farm - 294 MW

BENELUX
- Rabobank - 27 MW

POLAND
- EDP Renewables Wind Farms Acquisition - 570 MW
- EBRD and Relax Poland Wind Farm - 120 MW
- Wento Wind Farm Projects - 149.5 MW
- EDP Renewables Wind Farm Projects - 270 MW
- Dong Energy Wind Farm Projects Acquisition - 555 MW
- Iberdrola Renewables Polska Wind Farms - 1200 MW
- ERG S.p.A Portfolio Wind Farm Projects - 100 MW

DENMARK
- LM Wind Power Acquisition - EUR 1.5 billion
- Visoemo 2 - 184.5 MW

FRANCE
- TEM Project Brie - 20 MW
- Haute Normandie & Nord Pas de Calais - 22.5 MW
- Guadeloupe - 16 MW
- South of France - 60 MW
- Dunkerque Offshore Wind Farm - 600 MW
- ERG Wind Projects - 750 MW
- Perles Wind Projects - 12 MW

NORWAY
- Project Magpie - 450 MW
- Honnøy, Okla and Lutelandet Wind Power Projects - 100 MW
- Fosen Wind (the biggest onshore wind farm in Europe) - 1600 MW
- Project Raudfjell/Kvitfjell - 300 MW

SPAIN
- Tarragona Wind Farms
- Vineyard Wind Offshore Wind Project - 1600 MW
- Dong Energy Wind Parks Acquisition - 750 MW
- Spanish Power Wind Farms Acquisition in Sweden - 300 MW

GERMANY
- PEGAS Wind Park
- Linda Windpark Acquisition - 21.6 MW
- Stoogby and Eiholm Wind Projects - 26+ MW
- B Capital Partners Portfolio Offshore Wind Farms - 100 MW
- Portfolio Wind Farms - 50 MW

BULGARIA
- Swaro Wind Farm - 60 MW

UKRAINE
- West Crimea - 900 MW
- Opic Wind Farm - 120 MW
- EDF Energy Nouvelles Wind Plans Sale
- IVPC Power 3 Wind Power Plant Acquisition - 112 MW
- Swartvikenberget Wind Farm - 20 MW

SWEDEN
- Project Gothenburg - 50 MW
- Project Lulea - 120 MW
- Grimsa - 46.8 MW
- Project Regues - 600 MW
- NordLB Project Financing - 46.8 MW
- Valskjla Wind Farm - 375 MW
- BlackRock Wind Farm - 46.2 MW
- Alde & Stattneyhult Wind Farms - 115 MW
- OX2 Wind Farm Acquisition - 21.6 MW
- Orbanberg Wind Power Project - 23 MW
- NTR 2 Wind Farms Projects
- Tranebo and Gullved Wind Farm Project - 50 MW
- Portfolio Wind Farms - 475 MW

ITALY
- Financing Butena & Siciliana Wind Park - 18 MW + 16.5 MW
- Wind Farm Ceringola - 1 MW
- Serra Carpaneto - 16 MW
- GDF Suez - ERG Wind Farm Portfolio - 636 MW
- Sigma Energy Wind Farm Acquisition - 20 MW
- Westwind Wind Farm Acquisition - 39 MW
- Basilicata Wind Farm - 16 MW
- EON Wind Farms Settlement - 328 MW
- Calabria Region Wind Farms - 32 MW
- Basilicata Wind Farm - 30 MW
- Melit Wind Plant - 28.8 MW
- Monte d’Aria Wind Project - 8 MW
- E-Vento Ciro Wind Project Acquisition - 30 MW
- Sarntina Wind Power Plant Acquisition - 100 MW
- Tuscan Wind Farms Acquisition - 120 MW
- IVPC SAS Wind Projects - 169 MW
- IVPC SAS Wind Projects Sale - 650 MW
- Carpinone Wind Park Sale - 24 MW
- Grutfalka Wind Power Project - 30 MW
- Eurowind Wind Farm Refinancing - 80 MW
- Rocchetta Wind Farm - 8 MW

ROMANIA
- PNE Wind Farms - 102 MW

PORTUGAL
- Trustenergy Wind Project - 490 MW

FINLAND
- Yksipihla Wind Farm - 14.4 MW
- Project Earth - 312 MW
- Project Swan - 30 MW
- Ribacken Wind Farm - 16.5 MW

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Selected Renewable Energy Experience in Europe

SOLAR EXPERIENCE – EUROPE

UK
- Refinancing of Islip and Springhill Solar Projects - 10 MW
- Brilliant Harvest - 1.9 MW
- First Solar (Joint Venture) Portfolio Solar Project - 80 MW
- Equitix Infrastructure IV - Solar Acquisitions - 20 MW
- ReneSola Solar PV Plants - 100+ MW
- Owls Hatch Solar Power Park - 50 MW
- Barclays Solar Parks Acquisition - 25 MW
- Equitix Cowdon and Carworth Projects - 80+ MW
- Belectric Portfolio Solar Projects Acquisition - 80 MW
- GES Rooftop Solar PV Projects
- Ancala 2 Solar Portfolio Projects Financing
- Unilever Rooftop Solar Facilities PPA

BENELUX
- HSH Nordbank AG - 100+ MW

GERMANY
- Project Younicos
- ICE 5 GmbH Solar Plants - 34 MW
- German Private Equity Fund Solar Power Plants - 43.65 MW
- First Solar Joint Venture Solar Projects - 100+ MW
- First Solar Moroccan Solar Project

SPAIN
- First Renewable Solar PV Development Sites Disposal - 10 MW
- Ciudad Real Solar Farm - 9.4 MW
- Albacete Solar Farm - 10 MW
- Andalucia Solar Farm - 4 MW
- Florida Power & Light Solar Projects - 50 MW

ROMANIA
- Thezan Photovoltaic Plants Project - 9 MW

FRANCE
- Volvro and Mirrors Eurodifare - 3 - 1818 MW
- Green Africa Power LLP - 20 MW
- Gernicourt Partners PV Plants - 55 MW

ITALY
- Financing ALPS Energy - 7.5 MW
- Blue Elephant Energy AG - 22 MW
- First Solar - 900 MW
- 9REN PV Portfolio Plants - 21.7 MW
- Abruzzo PV Plants - 2 MW
- Sungem Holging Photovoltaic Plants - 31 MW
- Virdis Energia Portfolio PV Plants Acquisition - 22 MW
- Sicily Concentrated Solar Plants
- ESU Photovoltaic Plants Sale

PORTUGAL
- Project Sunflower - 1 MW
- Aura Power Solar Project - 300 MW
- Eef Solar Project - 5.6 MW
- Sunflower Italy S.r.l Photovoltaic Plants Sale - 17.06 MW
- Guidonia Montecelio Photovoltaic Plants Acquisition - 3 MW
- Lazio Region Photovoltaic Plants - 16.44 MW
- Apulia Photovoltaic Plants Acquisition - 6 MW
- Calabria Photovoltaic Plant Sale - 40 MW
- CEP Photovoltaic Plants
- Calabria, Campania and Lazio Photovoltaic Plants Acquisition - 48 MW
- Sardinia Photovoltaic Plants Acquisition - 4.3 MW
- Sicily Photovoltaic Plant - 7 MW
- Apulia Photovoltaic Plants Acquisition - 3 MW
- Gortex Sicily Photovoltaic Plant - 3 MW
- Sunflower Sustainable Investments Photovoltaic Plants - 59 MW
- 9REN PV Portfolio Plants - 21.7 MW
- Abruzzo PV Plants - 2 MW
- Sungem Holging Photovoltaic Plants - 31 MW
- Virdis Energia Portfolio PV Plants Acquisition - 22 MW

NETHERLANDS
- HSH Nordbank Solar PV Project - 10 MW
- Scala Solar Park - 50 MW
- Major Dutch Bank Solar Project - 20 MW
- Portfolio Ground-Mounted Solar PV Projects - up to 256 MW
- Emmen Solar Park - 14 MW

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Thank you