



هيئة تنظيم الخدمات العامة
Authority for Public Services Regulation

Direct Sales Framework - Phase 1

Guidance Document

Version 1 - October 2022



Abbreviations and Acronyms

BST	Bulk Supply Tariff
CRT	Cost Reflective Tariff
Disco	Distribution Company
DSA	Direct Sales Agreement
DUoS	Distribution Use of System Charges
MoEM	Ministry of Energy and Minerals
OETC	Oman Electricity Transmission Company
OPWP	The Oman Power and Water Procurement Company
PPA	Power Purchase Agreement
TUoS	Transmission Use of System Charges



1 Introduction

The Direct Sales arrangement is regarded as one of the electricity market liberalization forms as per of the Sector Law (78/2004). The Authority after satisfying the requirements and stipulations of Article (32) of Sector Law (78/2004) exercise its powers conferred by Articles (32) and (76) of the Sector Law and issue this Guidance Document.

Direct Sales are a means of introducing competition for access to eligible customers – typically the largest customers. Direct Sales will be introduced through a staged implementation, with the first stage, Phase 1, eligibility for Direct Sales participation will be limited to the following:

- Large Customers with their own captive generation¹ (Buyer); and
- Generators with PPA expired (Seller).

The Phase 1 Direct Sales arrangement aims to use as much of the existing market systems, processes, and frameworks as possible so that Phase 1 Direct Sales contracts are a logical subset of the broader range and scope of market-based contracts that the end point liberalised market design can support. This allows focus on what change contribute both to expanding Direct Sales applications and progressing the liberalisation efforts further. However, a range of pre-conditions must be achieved.

There are technical aspects of Direct Sales – mainly to ensure that physical connections, dispatch implications, and metering data and settlement implications are all catered for. There are also commercial and economic implications related to the price signals that direct sales proponents and eligible customers see and to which they respond. These signals determine the extent of interest by potential sellers (generators) and the value proposition anticipated by eligible customers.

Technical enablement is crucial to establishing the legal and regulatory framework for direct sales. However, commercial and economic aspects will then drive uptake and perceptions of benefits. Electric power systems have a high degree of fixed costs. An important part of a Direct Sales regime involves determining a level of non-bypassable costs to continue recovering from customers connected to the system as they shift to being 'Direct Sale' customers.

2 Technical Enablement of Direct Sales

Current arrangements allow a generator to sell to OPWP via Oman Electricity Market (the Spot Market) or through PPA contracts with OPWP. This document introduces a new facility to allow a generator to sell directly to a customer. Such a sale is referred to as a **Direct Sale**.

The primary technical enablement requirements for Direct Sales are two-fold:

- To be able to determine what physical quantity generation output from a direct sales generator is being sold to a customer; and

¹ Holders of Licence Exemption from the Authority



- To be able to bill the customer and pay the generator for the combination of direct sales generation output, use of system to support direct sales generation reaching the customer, and any other purchases by the customer of electricity from the system (in addition to those from the direct sales generator).

The Authority notes that enabling these information and settlement functions to be as flexible as they are in fully liberalised markets will take time as existing systems may not be able to accommodate the full flexibility seen in end-state electricity markets. To provide time for changes to be made a phased introduction of Direct Sales will be followed. This will allow for further system enhancements to be made as volumes build.

2.1 Eligibility

In Phase 1, eligibility for Direct Sales participation will be limited to the following:

- Large Customers with their own captive generation² (Buyer); and
- Generators with PPA expired (Seller).

The Generators will be subject to dispatch by the system operator (OETC). It is possible that Direct Sales volumes could be constrained off by OETC.

Direct Sales Customers will be CRT customers as the CRT is cost-reflective and not subsidised. Even though the tariff is not fully unbundled, the CRT covers all relevant and attributable costs.

2.2 Contract with the Market Operator

The Eligible Generator may offer into the Spot market any capacity that is not contracted for Direct Sales with the Eligible Customer(s). This capacity shall be offered in cost-reflective basis, in accordance with the Oman Electricity Market Rules.

In order to be able to offer capacity into the Spot market, the Eligible Generator shall sign the Accession Agreement for the Market Rules with the Market Operator.

2.3 Direct Sales Agreement (DSA)

The Phase 1 Direct Sales Framework will require the ability for the Eligible Customer to purchase a mix of **Direct Sales** and **System Sales** at any time.

Imbalances will exist in which an Eligible Customer uses more or less than the Eligible Generator is dispatched to generate.

Without the ability to purchase from the spot market, the Eligible Generator cannot offer 'firm' electricity, as there will be times when the Eligible Customer is using electricity that does not

² Holders of Licence Exemption from the Authority



correspond to generation by the Eligible Generator. The Eligible Customer shall purchase any excess consumption over the directly contracted amount from the Disco/Retailer at the CRT.

Contracts between Eligible Generators and Eligible Customers will therefore need to be written on a **best endeavours** basis as there is no fall-back option for an Eligible Generator to buy from the spot market or for the Eligible Customer to buy from the spot market in the event of an unplanned (or planned) outage or in the event the Eligible Generator is not dispatched for any reason by the system operator³.

The Market Operator and Discos, as the 'billing parties', will need to track and bill for direct sales and system sales either separately or on an integrated basis. Generation contract quantities and dispatched generation will need to be tracked so that settlement of the appropriate direct sales and system sales is accurate.

2.4 Flow of Information

It is crucial that the contract quantities of Direct Sales be measured with relevant information provided to support appropriate financial settlement. The contract quantities of Direct Sales must be matched to actual generation and consumption. Unmatched consumption will be charged the regulated CRT. Matching is the most important process to support Direct Sales technically as it ensures that billing and settlement align with physical operations.

If an Eligible Customer uses more electricity than is being generated by the Direct Sales generator, the 'excess' will be bought by the Customer at the normal CRT rate. The Eligible Customer is not exposed to the spot market for 'uncontracted' capacity but can be thought of as having a hybrid 'direct sales plus regulated CRT backstop' arrangement.

Conversely, an Eligible Generator scheduled by the spot market to dispatch more than it is contracted to sell directly, will receive the System Marginal Price for this generation. If the Eligible Generator produces more than it is contracted to sell directly, and is not scheduled by the spot market, this will be counted as Uninstructed Imbalance as per the Market Rules.

2.5 Transmission Use of System Charges

Eligible Customers shall pay Transmission Use of System Charges (TUoS) like other transmission grid connected customers. An Eligible Customer who is supplied by an Eligible Generator, even one 'right next door', still uses the grid, especially at any time the Eligible Generator is not generating whilst the Eligible Customer is still using electricity.

2.6 Disco/Retailer

The Disco/Retailer needs to know what proportion of electricity the Eligible Customer is buying under the existing CRT arrangement and what portion is subject to a Direct Sales arrangement.

³ In the future, a possible further option is for the Direct Sales Generator to enter into a bilateral arrangement with another direct sales generator to have them generate on their behalf in the event of a planned outage



The Disco will undertake the necessary 'matching' of generation, customer metering and Direct Sales contract data. This information is essential to the formation of the customer bill.

The Disco must be able to bill and collect the CRT from the Eligible Customers for electricity not purchased under a Direct Sales agreement. The Disco must also be able to bill and collect an 'adjusted CRT', i.e. 'Direct Sales CRT' from the Direct Sales customer for electricity purchased under a Direct Sales agreement.

The 'Direct Sales CRT' reflects the use of system and other non-bypassable costs that Direct Sales parties must still pay and consists of:

- **TUoS and DUoS charges** without change compared to what the customer would pay in case the customer would be fully provided by the system.
- **Direct Sales BST** to reflect the non-bypassable costs to be recovered even when an eligible direct sales customer is purchasing electricity directly from an eligible generator.
- **A Standing Charge** per account per annum for administering each customer account.

2.7 Direct Sales BST

For each MWh directly supplied, the Eligible Customer shall pay Direct Sales BST which reflects the system non-bypassable costs and is payable to OPWP. System non-bypassable costs include the costs related to OPWP's PPA capacity payments, costs of ancillary services and transmission losses. These costs are currently covered by the BST.

Customers with their own captive generation, the Eligible Customers in Phase 1, have typically relied less on import from the transmission grid and instead utilized their own onsite generation capacity. However, these Customers are still connected to the transmission grid and enjoy the possibility to rely on the system. For the aforementioned reasons the Authority consider that it is appropriate that Eligible Customers in Phase 1 contribute also to the non-bypassable system costs.

The Authority shall confirm the Direct Sales BST to be applied in year t by the end of December of year t-1.

Accounting for Losses

As electricity is transported through a network a certain amount is lost as heat (technical losses). Losses are already accounted for in the BST and CRT and thus recovered from CRT Customers on an average loss basis. Under Phase 1 of Direct Sales this will continue for Eligible Customers as well and will be accounted for in the non-bypassable Direct Sales BST that will still need to be paid.



Ancillary Services

Generation capacity still covered by PPAs is available to OPWP/OETC for provision of ancillary services as a result of the dispatch rights provided to OETC by those PPAs. As long as there are enough resources under contract to provide the required level of ancillary services, there is not necessarily any change in required ancillary services costs associated with Direct Sales generation.

OETC has the ability to procure additional ancillary services if needed. As system operator, OETC can call upon all connected parties (as presently provided for in the Grid Code) to provide ancillary services, and should OETC need to call upon uncontracted generation capacity to provide ancillary services, a compensation or contracting mechanism can be put in place (as provided for in the Grid Code).

All ancillary service costs are currently recovered through the existing BST and CRT charges. The Direct Sales BST allows for continued recovery of ancillary services costs.

2.8 Gas Supply

Eligible Generators shall secure their natural gas supply contract directly with the Ministry of Energy and Minerals (MoEM).

2.9 Metering Arrangements

Accurate metering of both direct sale generators and loads is essential to ensure direct sale contracts can be settled appropriately. Because neither Eligible Customer nor Generator can purchase directly from the spot market, a hybrid billing arrangement is needed during Phase 1. Under the hybrid model, an Eligible Customer buys from the Eligible Generator and buys from the system any generation the customer requires that is not provided by the Eligible Generator. Metering data must be matched against contract status to determine whether the Eligible Generator is selling into the spot market or is selling to an Eligible Customer.

OPWP (as market operator) has access to all required scheduled generation metering data for the purpose of billing and settlement under current arrangements. Whilst OETC would have metering data for transmission system connected customers, it would not have customer specific metering data for distribution system connected customers. Accordingly, the matching process involves the Market Operator coordinating with the relevant DISCO to allow for the creation of a registry of Direct Sales Contracting data sufficient to identify the counterparties and the contracted quantities. Pricing or other commercial information is not required unless it affects the contracted quantities. However, in Phase 1 before aforementioned arrangements are in place, the MO expects to coordinate with the Eligible Generator and Eligible Customer to acquire necessary meter data.



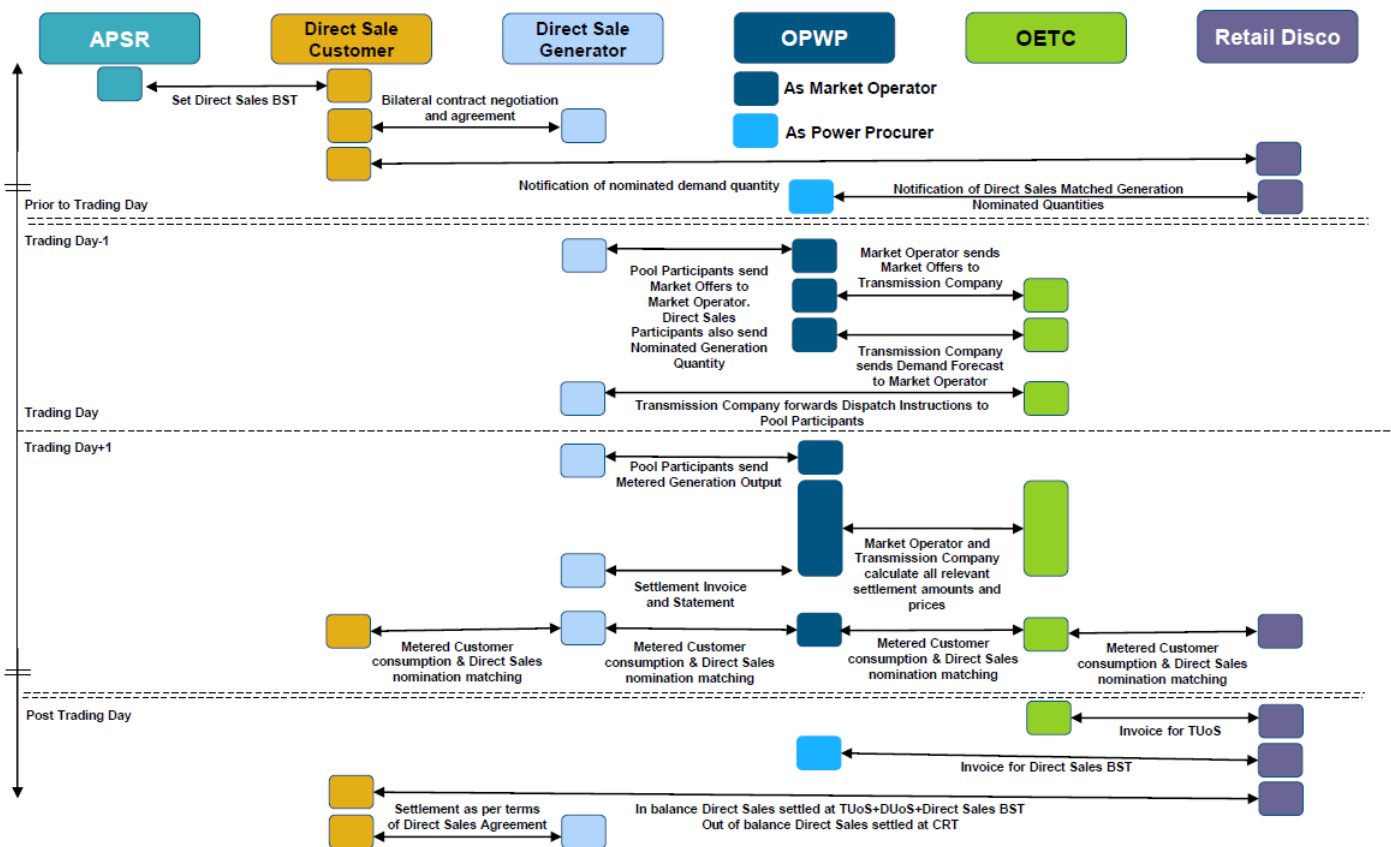
2.10 Tenure

No specific tenure is set for the Direct Sales contracts except that the maximum length of the contract is one year at a time.

2.11 Timeline of Direct Sales Events

Figure 1 demonstrates the Direct Sales Framework - timeline of events as well as the information flows between the various parties involved in the recommended direct sales framework.

Figure 1: Timeline of Direct Sales events





Summary of Responsibilities

In short, the responsibilities of each Party are the following:

The Authority:

- Determining the eligibility for Direct Sales and the value of Direct Sales BST (non-bypassable charge).
- On-going oversight of Direct Sales arrangements to ensure compliance with the Sector Law, Licenses and the Authority's instructions and decisions.

Distribution Company (Disco):

- Matching of generation, customer metering and Direct Sales contract data. Invoicing the Eligible Customer and collecting the Direct Sales CRT.

Eligible Customer and Eligible Generator:

- Agree on the terms of the Direct Sales Agreement and coordinate between the Authority, Disco and OETC and OPWP.

OETC:

- Dispatching the Eligible Generator, balancing and ensuring system stability.

OPWP (as the Power Procurer):

- Collecting the Direct Sales BST (non-bypassable charge) from Disco.

OPWP (as the Market Operator):

- Facilitating the spot market trading and the related settlement.



Appendix A: Direct Sales Agreement (DSA)

The DSA contract is mostly a bilateral matter between the parties. However, to assist in the parties establishing such agreements the Authority notes that the following matters should be given consideration by the parties. The list is not intended to be prescriptive or necessarily sufficient.

- Parties to the agreement (Eligible Generator and Eligible Customer)
- Duration of agreement (start and finish dates)
- Agreement renewal and/or review options
- Any transition arrangements (for shifting agreement in future to pool based arrangements)
- Confirmation that parties have all necessary approvals in place (e.g. from the Authority, OPWP, OETC, Disco, MoEM)
- Metering point(s) for direct generation
- Metering point(s) for direct consumption
- Agreed direct sales quantities (e.g. daily/weekly profile)
- Agreed price for energy between the parties (inclusive of any agreed 'scarcity' or 'capacity' charge from the Eligible Generator)
- Payment terms (e.g. frequency, any security to guarantee payment)
- Parties agree that Eligible Generator will nominate direct quantities to OPWP (market operator) on behalf of both parties
- Eligible Customer to pay non-bypassable cost, the Direct Sales CRT to the system
- Outage management
 - Parties to co-ordinate outage planning?
 - Use of alternative generation units to provide energy?
 - Imbalance arrangements (e.g. Eligible Customer to be supplied by Disco during outage events)
- Process to make short-term adjustments to direct sales quantities
 - Regular meetings to review and adjust production and consumption
 - Process to agree variations prior to market nomination gate closure



- Imbalance management
 - Any compensation between the parties should either (or both) parties fail to produce or consume at the nominated direct sales quantities
 - In the event of actions taken (or not taken) by the parties
 - In the event of directed action from the system operator (OETC)

Appendix B: Direct Sale CRT in Year 2022

In year 2022, the Direct Sales CRT shall be calculated using the following values:

- TUoS:
 - TUoS as stated in the Authority's document: Statement of Charges 2022 - Cost Reflective Tariffs
- DUoS:
 - DUoS as stated in the Authority's document: Statement of Charges 2022 - Cost Reflective Tariffs
- Standing Charge:
 - Standing Charge as stated in the Authority's document: Statement of Charges 2022 - Cost Reflective Tariffs
- Direct Sales BST:
 - The Authority shall confirm the Direct Sales BST to be applied in year t by the end of December of year t-1