



## Bill Estimation & Calculation of the Lost Revenue

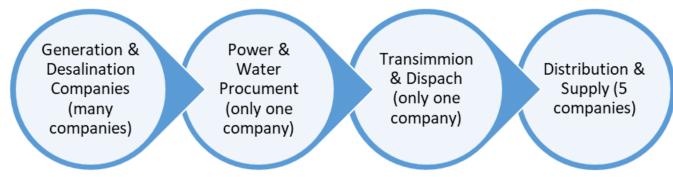
#### Ahmed Al Arafati Authority for Public Services Regulation – Oman

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## **Background- Electricity Sector**



- -The Authority is regulating electricity sector, but more services such as water & waste water are soon to come (2022).
- -Electricity market structure:



Electricity tariffs must be approved by the government.Retails tariffs are still subsidized.

## **Background- Electricity Sector**



- -The Authority has the power to examine & resolve electricity customer complaints.
- -The Customer should follow the Customer Complaints Handling Procedures:

#### **Customer Complaint Handling Procedure**



## **Background- Electricity Sector**



- -Oman climate: very hot in summer with highs around 40 °C on average.
- -The annual demand profile in Oman is highly seasonal, with average summer demand more than double the average demand in winter.
- -Demand typically peaks from May to July, during the highest daytime temperatures and most intensive use of air conditioning units.



### **Issues raised from Customer Complaints**

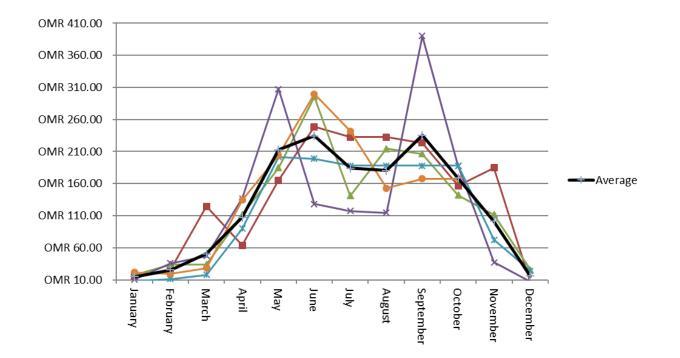


- -Distribution & Supply companies have the responsibility to ensure meters are accurate & read on timely basis.
- -More than half of electricity complaints are related to billing/ accuracy of meter reading (mainly in summer period when the consumption increases sharply).
- -Inaccurate meter readings/ unreasonably estimated meter reading lead to customer dissatisfactions.
- -The analysis of a number of billing related complaints shows that the high bill is mainly caused by a series of under-estimated readings prior to obtaining the actual meter reading.

#### **Issues raised from Customer Complaints**



-Example of a customer's bills across the years (under-estimation issue):



#### Challenging Issue: reasonable bill estimation



- -Discussions with the Distribution & Supply companies revealed that each company follow a certain approach for bill estimation.
- -The regulator decided to put a guidelines that set the principle of bill estimation.
- -The aim is to provide estimated bill that is close to actual consumption.
- -In addition, the regulator demanded the Distribution & Supply companies to expand the use of smart meters (post and prepaid meters). Smart meters must be used for new connections.
- Smart meters will help in reducing the problem of under/overs estimated bills.
- The county is planning a full smart meters roll out in 5 years time.

#### **Proposed principles for bill estimation**



- -No more than 3 consecutive estimations of a customer are allowed;
- -An estimated bill cannot be equal to zero unless there is clear evidence that the customer has not been consuming electricity in the recent months;
- -Estimations shall be tailored to the customer and cannot be generalized; estimation shall be based on customer's historical data, if feasible;
- -The provisional bills shall be adjusted based on the subsequent actual meter reading

#### **Proposed principles for bill estimation**



-Estimations are determined as follows (proposed):

- Average reading of the last 24 months; These 24 months shall not have more than 6 months of estimations
- If 24 months of reading is not available, 12 months average shall be used; These 12 months should not have more than 3 months of estimations
- If 12 months of reading is not available, use consumption of the previous month, only if it is for the same customer
- If previous month reading is not available, use the same month of last year, if it is for the same customer
- If none of these are available, the licensee shall estimate based on the maximum capacity of the meter of the customer.

#### **Computation of the lost revenue** (meter faulty cases & meter tampering)



- -Estimations can also be used when the Distribution & Supply company identifies that a meter is faulty and records the wrong data (over-recording, under-recording, not recording at all);
- -In this case, the licensee shall estimate the consumption and adjust;
- -Currently, there is no common approach used by the D&S companies;
- -The regulator proposed a common methodology for consumption estimations to be used by D&S companies (this is still under discussion).

#### **Computation of the lost revenue** (meter faulty cases & meter tampering)



Estimations for this case shall follow the following instruction (proposed):

- a. Estimate the duration of the fault: the licensee shall analyse the consumption patterns of the customer over a period of 12 to 24 months and detect when the change in meter reading accuracy likely started;
- b. Estimate consumption that should have been applied during the period in which the metering fault is expected to have occurred;
- c. The D&S company shall analyze the consumption data of the customer before the fault and define an average estimated daily consumption, then apply it to the period of the fault.

#### **Computation of the lost revenue** (meter faulty cases & meter tampering)



Estimations for this case shall follow the following instruction (proposed):

- d. If consumption data for the period prior to the fault is not available, the licensee shall install a new meter and initiate an observation period for no more than 12 months and upon completion of the observation period issue the adjustment bill for the retroactive period in question.
- e. Calculate the adjustment in electricity usage and in OMR to be applied to the customer, either up or down.
- f. The maximum retroactive period to adjust the bills cannot exceed 12 months.

An email will be sent to CP members to share experience on this subject.



هیئة تنظیم الخدمات العامـــة Authority for Public Services Regulation





# THANK YOU FOR YOUR ATTENTION!

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