# Addressing RES Revenue Extremes



NARUC/USAID Energy Regulatory Partnership Program

The Public Services Regulatory Commission of Armenia
And

The Iowa Utilities Board

### Windfalls and Shortfalls

- Need to balance interests of RES investors and retail ratepayers
  - Investors need opportunity to earn a reasonable return
  - Ratepayers should not have to pay rates resulting in unreasonably high profits to RES investors
- Simple fixed payment per unit risks over or underpayment

## Variable Pricing

- Variable pricing can balance interests
  - Ensure revenues are sufficient to encourage investment
  - Ratepayers secure hedging benefit if electricity prices increase



## Variable Pricing

- Many variations:
  - Can affect all or part of rate
  - constant premium or sliding
  - typically tied to market price for electric power



### Constant Premium

- Constant premium is a fixed premium over the market price
- Good for dispatchable generation, as it creates an incentive to generate when demand and the market price are high
- However, does not address risk of paying more than necessary to attract investment



#### Variable Premium

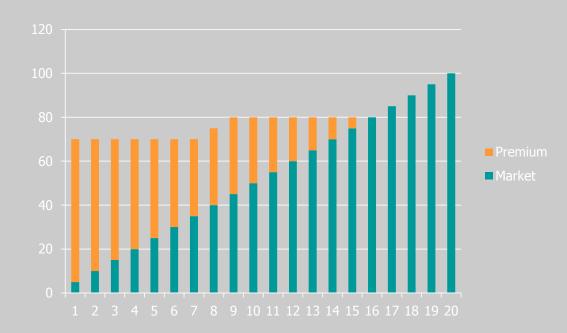
- Variable premium pays a different premium depending on the market price
- Sliding scale uses cap and floor
- Spot market gap model has a cap



## Sliding Scale Example

Variable premium with floor and cap





Spot Market Price Increases →



## Spot Market Gap Model

 Premium is capped at investor requirement, 8 cents/kWh here:

