

# Energy Forward Market

September 30, 2008 Technical Support Group Meeting # 3



- Review minutes of July 29 meeting
- Review meeting materials
- Goals and Decision Factors
- Discuss high level design and impacts
- Prudential discussion (IESO Finance)
- General findings
- Discussion, Questions and Next Steps

- Diagram of high level design options (with definitions and reasons for eliminations)
- Summary of design alternatives
- Comparison chart

The goal of an EFM is to create a market which:

- provides opportunity for forward financial commitments, and
- delivers a reliable predictor of price in advance of real-time.

Decision factors:

1. Will the EFM result in adequate liquidity?
2. Will efficiency gains be greater than the costs?

Adequate liquidity is required to create a reliable indicator of real-time price.

What impacts liquidity and what control do we have?

### Controllable elements

- Prudential requirements
- Participation of non-MPs

### Non-Controllable elements

Price volatility related to:

- Regulated pricing
- Global Adjustment
- Weather and Seasonality
- Cost of generating fuels
- Congestion
- Inability to store electricity

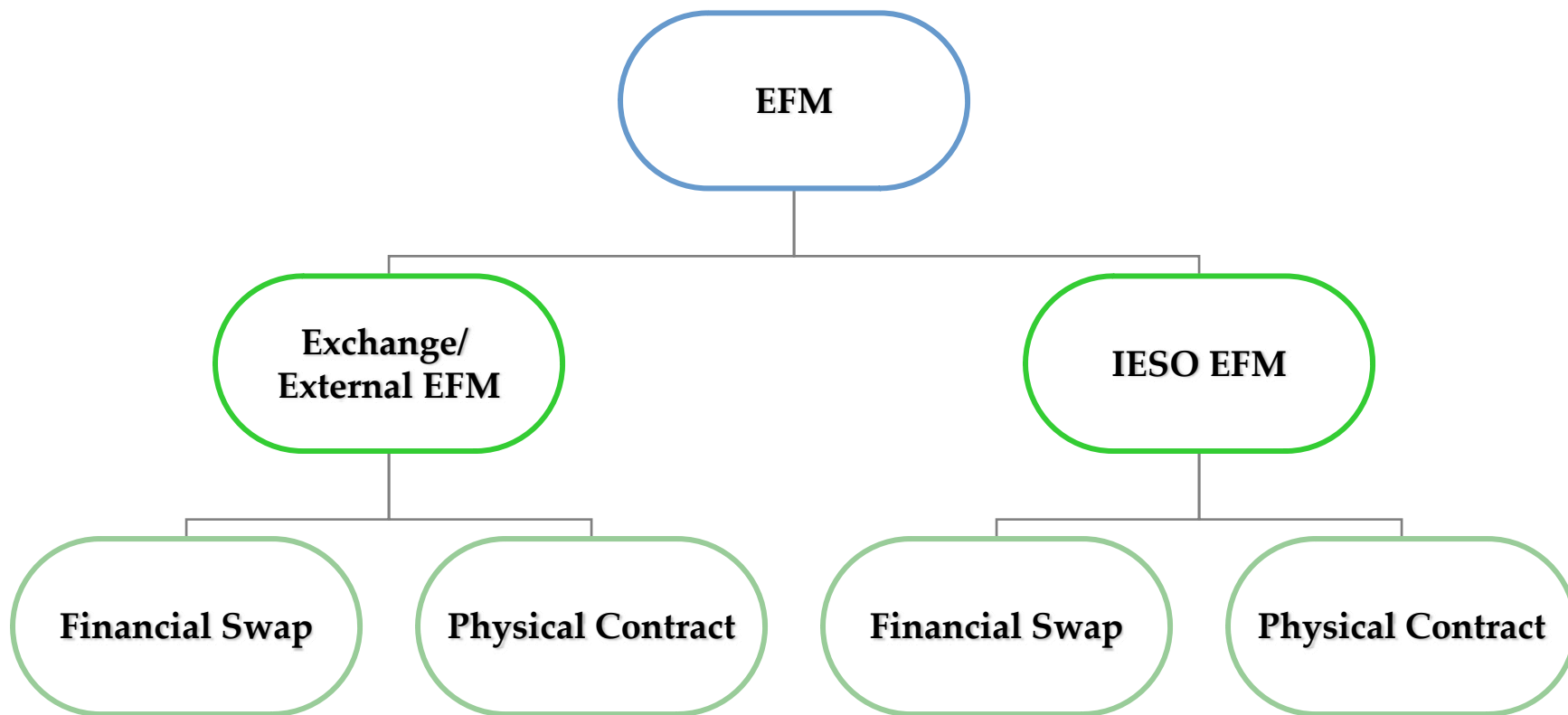
Note re: Virtual Participation - if liquidity improves, more virtuals will participate, and if more virtuals participate, liquidity will continue improving (circular impact)

### Potential Benefits

- reduced overall prudentials
- improved demand response and decision-making (consumption and production schedules)
- risk mitigation

### Potential Costs

- increased overall prudentials
- external fees
- systems changes (tool costs)
- market rule changes



**For the IESO, the key difference between a financial swap and a physical contract is the combined settlement of physical quantities (not possible for financial transactions) for the purpose of calculating prudential postings.**

How do our high level choices impact liquidity and CBA?

- IESO administered or externally operated EFM
- Physical contract or Financial swap

Consider the impact of these choices on:

1. Prudentials (impacts liquidity and CBA)
2. Participation of non-MPs (liquidity and CBA)
3. System requirements (CBA)
4. Market rules (CBA)

# Impact of High Level Design Choices

	IESO Administered EFM		Externally operated EFM	
	Decision Factors			
	Liquidity/Price Signal	CBA	Liquidity/Price Signal	CBA
<b>System Requirements and Market Rules</b>	n/a	Additional cost for both physical contract or financial swap, but likely lower cost for swap (in existing rules).	n/a	Additional cost for physical contract or financial swap.
<b>Prudentials</b>	Prudentials and CBA neutral under a physical contract; both likely negative under financial swap.		Prudentials and CBA likely negative under either physical contract or financial swap.	
<b>Participation of non-MPs</b>	Not allowed		Allowed	

There are elements beyond our control which impact liquidity: price volatility (or lack thereof) related to regulated pricing, global adjustment, weather and seasonality, cost of generating fuels, congestion, and inability to store electricity.

- Discussion of prudential requirements led by IESO Finance group

1. Adequate liquidity and positive CBA are possible with an IESO administered EFM due to potential advantages in prudential calculation for participants in an IESO administered EFM (rather than external EFM) under a physical contract (rather than financial swap).
2. Some degree of system change is required for all scenarios, and market rule changes are required for all except the current EFM in the rules.
3. Price regulation interferes with liquidity by limiting price volatility. As prices deregulate through natural evolution of the market (MUSH, new generation, LSE/CEA), electricity markets will need financial commitments to address price volatility related to weather, fuel costs, and so on.

# Discussion, Questions and Next Steps