

# Two Myths Debunked

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## The United Illuminating Company

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# First Myth: “There is a capacity crisis in Connecticut”

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## ❑ Fact:

1. There is adequate capacity in N.E.
2. Over the years Ct has been “long” as well as “short”.
3. That’s why we built NEPOOL – to share capacity and reduce the total reserves required.
4. The problem is that we can’t move the power from generators to loads.

# Why Should We Be Concerned?

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□ If we can't properly define the problem, how can we make sound policy decisions?

□ We need solutions that:

1. Provide optimum economic benefit,
2. Are timed to match the duration of the problem, and
3. Are realistic to implement.

# What Should We Do?

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## □ Short term:

1. Complete Bethel/Norwalk **ASAP**
2. Reduce load via more CLM and economically viable distributed gen.

## □ Long term:

1. Complete Middletown/Norwalk, AND Eastern CT/RI lines **ASAP**
2. Fix the N.E. capacity market
3. Repower existing CT generation

## Second Myth: "LICAP is Evil Incarnate"

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### ❑ Fact:

1. LICAP will replace the flawed ICAP market, which has caused the proliferation of costly RMR contracts.
2. LICAP may actually cost LESS than the current system
3. LICAP is a *market* solution to a market problem

# Costs Under Existing Flawed Capacity Market - ICAP and RMR

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- Currently, contributions to fixed cost capacity payments are derived primarily from two sources:
  - Reliability-Must-Run (RMR) cost of service agreements
  - Installed Capacity (ICAP market payments)

□ For 2005, the approximate annualized contribution toward fixed cost requirements (RMR+ICAP) is expected to be:

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| ■ SWCT zone       | $\$178 \text{ M} + \$30 \text{ M} = \sim \$208 \text{ M}$             |
| ■ ROC zone        | $\underline{\$120 \text{ M} + \$28 \text{ M}} = \sim \$148 \text{ M}$ |
| Total Connecticut | $\$298 \text{ M} + \$58 \text{ M} = \sim \$356 \text{ M}$             |

# LICAP Savings with RMR Eliminated

Base Case using most current ISO-NE model

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| LICAP Zone      | Flawed ICAP<br>Market plus RMR<br>COS Agreements | LICAP Total Cost<br>(adjusted for<br>PER, EFOR) | Savings       |
|-----------------|--------------------------------------------------|-------------------------------------------------|---------------|
| <b>SWCT</b>     | <b>\$208 M</b>                                   | <b>\$176 M</b>                                  | <b>\$32 M</b> |
| <b>ROC</b>      | <b>\$148 M</b>                                   | <b>\$112 M</b>                                  | <b>\$36 M</b> |
| <b>Total CT</b> | <b>\$356M</b>                                    | <b>\$288 M</b>                                  | <b>\$68 M</b> |

LICAP total cost adjusted for Peak Energy Rents and unit availability.



# LICAP Savings with RMR Eliminated

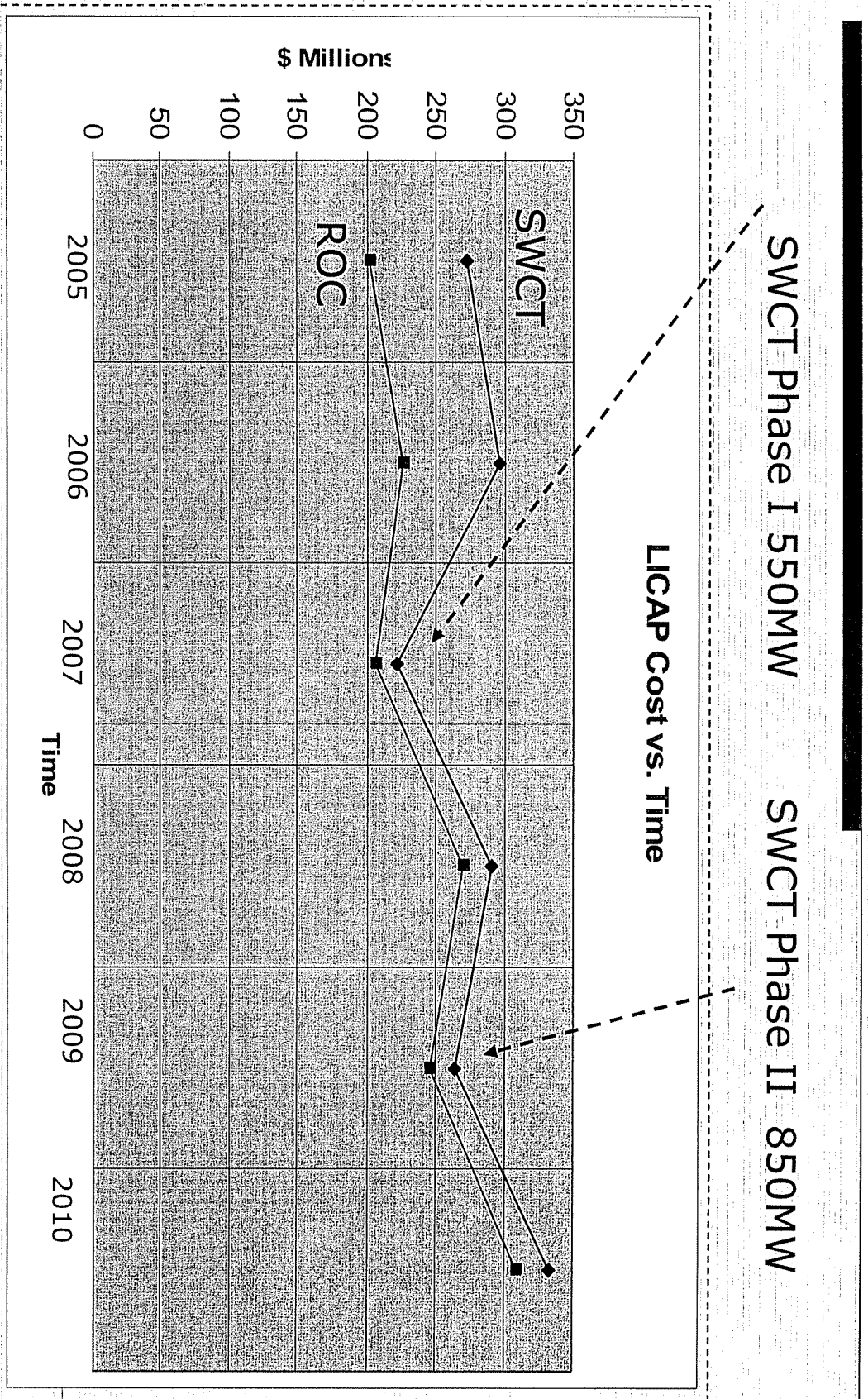
(Capacity requirements increased 2.5 % above Base Case)

| LICAP Zone      | Flawed ICAP*<br>market plus RMR<br>COS Agreements | LICAP Total Cost<br>(adjusted for<br>PER, EFOR) | Savings          |
|-----------------|---------------------------------------------------|-------------------------------------------------|------------------|
| <b>SWCT</b>     | <b>\$208 M</b>                                    | <b>\$278 M</b>                                  | <b>(\$70 M)</b>  |
| <b>ROC</b>      | <b>\$148 M</b>                                    | <b>\$208 M</b>                                  | <b>(\$60 M)</b>  |
| <b>Total CT</b> | <b>\$356 M</b>                                    | <b>\$486 M</b>                                  | <b>(\$130 M)</b> |

\*Although ICAP cost expected to increase with an increase in capacity requirements, it was assumed to be constant.



# Effects of SWCT Transmission Upgrades on LICAP Costs



# LICAP Provides a Market Mechanism

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Cost of LICAP is controllable with...

- **Transmission**
  - Construct transmission to serve constrained zones
- **Demand Response**
  - Decrease peak demand - (reduce capacity requirement in constrained zones)
- **Generation**
  - Install new capacity in constrained zones

# Sensitivity Study\*

Annual LICAP savings for a 100 MW increase in Transmission Transfer Limit, Load Response, and Generation:

| <b>Effect of 100 MW Increase in...</b>     | <b>SWCT</b> | <b>ROC</b> | <b>Connecticut</b> |
|--------------------------------------------|-------------|------------|--------------------|
| Transmission Transfer Limit (SWCT and ROC) | (\$47 M)    | \$3 M      | (\$44 M)           |
| Load Response (SWCT only)                  | (\$60 M)    | (\$1 M)    | (\$ 61 M)          |
| Available Generation (SWCT only)           | (\$51 M)    | \$0 M      | (\$ 51 M)          |

\* Relative to Base Case

# Conclusions

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- ❑ Define the problem correctly
- ❑ Fix the capacity market
- ❑ Don't be afraid of LICAP
- ❑ Build transmission ASAP
- ❑ Reduce load with CLM and economic DG
- ❑ Repower existing CT generation