



Excellence in Practice Award Live Work Training

Session No.: TU303

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Learning Objectives

- Identify training needs to meet business goals
- Develop and design blended training program to have a better training effectiveness
- Formulate evaluation strategy to assess the effectiveness of the training program

Background

- CLP Power is a power company serving a worldwide financial center (Hong Kong) with more than 2.2 million customers
- Customers expect that supply interruption should be minimal
- Supply interruption is unavoidable due to system reinforcement and routine maintenance
- This would cause considerable impacts to economic activities and great inconvenience to customers
- Keeping continuous power supply is becoming more and more important, particularly in a world financial centre

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Business Strategy and Objectives

Business Strategy:

- Develop “Live work” working practice for selected works

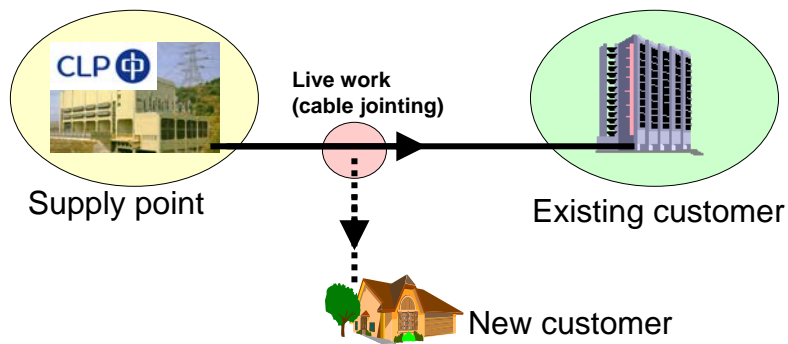
Business Objectives:

- Reduce supply interruptions to enhance supply reliability
- Ensure all Live works are carried out safely and effectively

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What is “Live Work”?

- Live work is a practice that enables our staff and contractor personnel to work on the supply lines while electricity supply to customers is still keeping on



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Challenges



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Cross Functional Team

- **A cross functional team was formed involving frontline staff and our trainers**
- **Deliverables include:**
 - Visited overseas power utilities to capture live work practice and experience
 - Formulated live work procedures
 - Sourced tools and equipment
 - Defined competency standards and assessment criteria
 - Established authorization mechanism

Training Program Objectives

- **Train up competent and safety conscious Live Work workers**
- **Ensure Live Work workers strictly follow working rules and procedures**
- **Build up a good safety attitude for Live Work workers**
- **Ensure knowledge and skills of Live Work workers are always kept current**

Various Live Work Training Program

- **Training courses for different target groups and job natures are developed which included:**

- (A) Live work on low voltage power cable jointing
- (B) Live work on low voltage distribution board
- (C) Live work on low voltage overhead line
- (D) Live work on low voltage services cutout
- (E) Live work on low voltage metering work
- (F) Live work on low voltage 100A cutout replacement



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Blended Training Program

1. **Classroom Training**
2. **Practical Workshop Training**
3. **Post Training Assessment**

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(1) Classroom Training



- **Pre-course assessment**
 - identify the trainees' knowledge gap and adjust training pace
- **Interactive e-learning modules**
 - Interesting and interactive to arouse trainees' interest
- **Scenario-based discussion**
 - Stimulate thinking, remove anxiety and strengthen confidence
- **Use of Personal Response System (PRS)**
 - Boost up learning atmosphere, encourage independent thinking and draw attention
- **Knowledge-based written assessment**

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(2) Practical Workshop Training

- **Work under stimulated environment**
- **Need to apply all personal protective equipment**
- **Reinforce safety behavior**
- **Use of “Wrong-step Monitoring System”**
 - Provide direct and instant response
 - Assure work quality
 - Identify common mistakes
 - Improve assessment efficiency
- **Skill-based workshop assessment**



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(3) Post Training Assessment

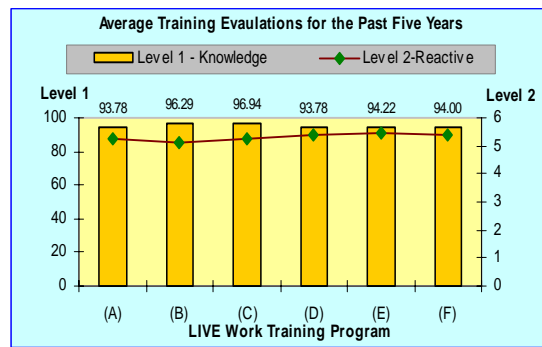
- **First time on-site assessment after training**
- **Skill assessment in real work environment**
- **Evaluate safety behavior**

Authorization and Refresher Training

- **Upon passing all the assessments, the staff will be appointed as an authorized Live Work Worker by his/her own department**
- **Refresher training is required for every 2 years**
 - Ensure knowledge and skills updated
 - Provide sharing platform

Results – Course Performance

Training Evaluation	5-year Average
Level 1 (Reactive)	5.4 (Max. 6)
Level 2 (Knowledge)	94.7% passing rate
Level 3 (Behaviour)	100% met standard



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Results – Trained up competent workforce for Live Work

- Certified total 490 staff and 92 contractor personnel
- Number of Live Work worker accounts for about 25% of operational frontline staff

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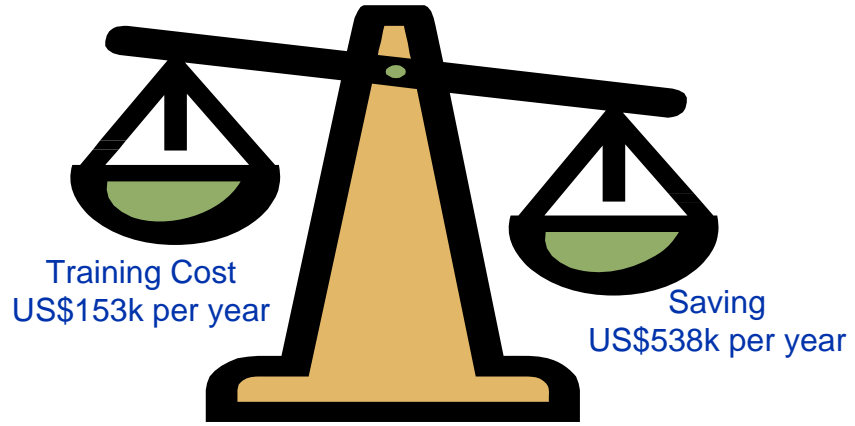
Results – Reduced electricity suspension time

Total 120,000
customers benefits from
reduced supply
interruption time by 60
minutes on average per
customer per year

Results – Attained high safety performance

Reached 99.99% for
which over 400,000
Live Work tasks
performed in the past 5
years

Results – Obtained positive financial benefits



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