



**Asia-Pacific  
Economic Cooperation**

**INTERNATIONAL WORKSHOP “IMPROVING  
ENERGY EFFICIENCY IN THE APEC MINING  
INDUSTRY”**

**21, 22, 23 October 2004  
Santiago Chile**

**APEC Energy Working Group**

**May 2009**

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21, 22, 23 October 2004

Radisson Hotel · Ciudad Empresarial · Av. Santa Clara 354, Santiago Chile

**PROGRAM SCHEDULE**

**DAY 1**

	ACTIVITY	
8:00 – 9:20	Registration and document delivery	
9:20 – 9:30	Workshop welcome and General Information	Mr. Tomas Astorga <i>Chair, GEMEED- APEC</i>
9:30 – 9:40	Opening remarks	Mr. José María Sulbrandt <i>Deputy Director Instituto de Asuntos Públicos Universidad de Chile</i>
9:40 – 9:50	Opening remarks	Mr. Alfonso Dulanto <i>Minister of Mining of Chile</i>
<b>Session 1: Best Practices and case studies on mineral extraction and processing operations</b>		
9:50 – 10:20	Energy consumption on grinding mills	Mr. Ernesto Beas <i>División El Teniente CODELCO Chile</i>
10:20 – 10:50	Effective Energy Utilization on Japanese Copper Smelters	Mr. Akihiko Akada, <i>Sumitomo Metal Mining Co., Japan</i>
10:50 – 11:10	Questions and answers	
11:10 – 11:30	<i>Coffee break</i>	
11:30 – 12:00	Experience of the application of an energy efficiency program at the Autlán Molango Mining Facility	Mr. Norberto Zabala, <i>Compañía Minera Autlán, México.</i>
12:00 – 12:30	Questions and answers	
12:30 – 14:00	<i>Lunch</i>	
14:00 – 14:30	Energy Consumption of the Copper Mining Sector.	Ms. Sarita Pimentel, <i>Comisión Chilena del Cobre (COCHILCO)</i>
14:30 – 15:00	Using control for adding value to energy efficiency of mineral processing plants	Prof. André Desbiens <i>Université Laval, Québec Canada</i>
15:00 – 15:20	Questions and answers	
15:20 – 15:50	<i>Coffee break</i>	
15:50 – 17:50	Round Table 1 (general audience)	Views and Proposals into the Environmental Cooperation Subgroup. / Views and Proposals into

		the Expert Group on Minerals and Energy Exploration and Development (APEC delegates only)
17:50 – 18:30	Questions and answers, discussion	

## DAY 2

	ACTIVITY	
8:00 – 9:00	Registration and document delivery	
<b>Session 2: New developments on energy efficient mining technologies</b>		
9:00 – 9:40	Keynote speech: "Mining and energy: The energy efficiency rights"	Mr. Fernando Sánchez A. <i>CEPAL</i>
9:40 – 10:10	Improving Energy Efficiency in SAG mills ("The influence of shell, grate and pulp lifters on the throughput of SAG mills").	Dr. Sanjeeva Latchireddi, <i>University of Utah, USA</i>
10:10 – 10:40	Energy efficiency of batch, continuous and one step copper processes	Mr. Andrzej Warczok, <i>University of Toronto, Canadá</i> Mr. Gabriel Riveros, <i>Departamento Ingeniería de Minas</i> <i>Universidad de Chile</i>
10:40 – 11:00	Questions and answers	
11:00 – 11:30	<i>Coffee break</i>	
11:30 – 12:00	Challenges for copper mining in the XXI century	Mr. Fernando Geister <i>CODELCO, Chile</i>
12:00 – 12:30	Questions and answers	
12:30 – 14:00	<i>Lunch</i>	
<b>Session 3: Policies for improving mining energy efficiency</b>		
14:00 – 14:30	China's energy policy and energy efficiency policies directed to the industrial sector, with special reference to mining.	Prof. Yanjia Wang, <i>Universidad Tsinghua, China</i>
14:30 – 15:00	Energy Efficiency in the mining industry: opportunities and institutional design.	Mr. Pedro Maldonado <i>Instituto de Asuntos Públicos</i> <i>Universidad de Chile</i>
15:00 – 15:20	Questions and answers	
15:20 – 15:50	<i>Coffee break</i>	
15:50 – 17:50	Round Table 2	
17:50 – 18:30	Questions and answers, discussion	
18:30 – 18:50	Conclusions remarks and closure	
19:30 – 21:00	<i>Cocktail</i>	

### DAY 3

	ACTIVITY
	Optional site visit to a copper mine
8:00 - 10:30	Travel to El Teniente mine site
11:00 – 13:30	Technical visit to copper grinding mills
13:30 – 15:30	Visit to Sewell copper museum
16:00 – 18:00	Return Travel to Santiago