

## IEA SHC Task 48 3<sup>rd</sup> meeting

### Quality assurance and support measures for Solar Cooling

Meeting Room AEE - Institut für Nachhaltige Technologien  
8200 Gleisdorf, Feldgasse 19 - Austria  
Tel.: +43 (0)3112 5886-127 - E-Mail: r.stranzl@aee.at

### Meeting Agenda – final version

September 10, 2012, 9:00 – 17:30 & September 11, 2012, 8:30 – 16:00

**Task 48 website :** <http://www.iea-shc.org/task48/index.html>

#### **Participation fee:**

The participation fee is 160 €\* all inclusive and it will only be possible to pay cash when registering in Gleisdorf.

The fee will include lunches and coffee breaks (Monday and Tuesday) and dinner on Monday 10<sup>th</sup> September (including transport, dinner, soft drinks and also solar brewed beer, wine, snaps).

\* Participation fee detail :

- 120,- EUR for 2 meeting days (incl. 2 breaks, lunch, water, coffee and juice) + Together Dinner
- Option 1 : 30,- EUR for the Buffet on 11/09 incl. all sandwich/drinks in Graz (after T48/T45 workshop)
- Option 2 : 10,- EUR for the Bus transport to Graz and Hotel Paradies if all members use it (5,90 EUR for public transport one way Gleisdorf-Graz)

#### **Get Together optional dinner on Sunday 9<sup>th</sup> :**

Irish Pub Red Baron - Adresse : Franz-Josef-Straße 10 -8200 Gleisdorf  
Meeting point: In front of the Pub at 18h30

## Agenda for Monday September 10<sup>th</sup>, 2012 (9:00pm-17:30pm)

### **Plenary**

9.00-9.15	Welcome and Organisational issues	Daniel Mugnier	TECSOL
9.15-9.40	Welcome, Introduction, IEA, Infos, Structure of the meeting, Participation letters	Daniel Mugnier	TECSOL
9.40-10.20	Presentations of new participants/observers (5-7min/each)		New entities

### **1<sup>st</sup> block : Subtask Planning & status update**

10.20-10:50	Subtask A : Structures, status, deliverables	Marco Calderoni	POLIMI
10.50-11:20	Subtask B : Structures, status, deliverables	Alex Morgenstern	FhG ISE
<b>11:20- 11:40</b>	<b>Coffee Break</b>		
11.40-12:10	Subtask C : Structures, status, deliverables	Stephen White	CSIRO
12.10-12:30	Subtask D : Structures, status, deliverables	Uli Jakob	Green Chiller

**12.30-13:30 Lunch Break at AEE INTEC in a room beside the meeting room**

### **2<sup>nd</sup> block : Latest developments & results session**

13.30-13:40	Latest stage of development on Pink Chiller	Werner Pink	PINK
13.40-14.00	MEGAPICS calculation tool	Romain Siré	TECSOL
14.00-14:20	Draft Design Guide for Solar Cooling with Double/Triple Effect Absorption Chillers	Stephen White	CSIRO
14.20-14.40	Latest developments on UWC Singapore project	Christian Holter	SOLID
14.40-15.00	Review of relevant international standards rating and incentive schemes	Dan Rowe	CSIRO
15.00-15.25	Measurement and verification procedures <b>Discussion on this procedure</b>	Daniel Mugnier	TECSOL
15.25-15.40	First results of the EVASOLK project	Bjorn Nienborg	FhG ISE

**15:40- 16:00 Coffee Break**

**Working groups : block1**

16:00-16:10 Organization of Group discussions on Work Package level (5-6people max per item) Daniel Mugnier TECSOL

16:10-17:30 Meeting in parallel on Work Package level; Suggested topics for working groups are:

\* **B4** : Simplified design tool used as a reference calculation tool : design facilitator (Activity leader : Romain Siré, TECSOL)

\* **A2/B3** : Life Cycle analysis on component/system (Activity Leader : Marco Beccali (UNIPA) and Tim Selke (AIT))

\* **B7/C2** : Quantitative quality and cost competitiveness criteria for systems / Methodology for performance assessment, rating and benchmarking (Activity Leader : J. Döll / M. Schicktanz (ISE))

\* **B6 / A4**: Pumps efficiency and adaptability / Self detection on monitoring procedure (Activity leaders : Martin Helm (ZAE) & Dirk Pietruschka, Zafh.net)

**End of the working Day 1**

**Gala Dinner on Monday:**

"Erlebnisbrauerei Heustadt!":

<http://www.steirischursprung.at/>

Brodersdorfstraße 85

8200 Brodingberg

Tel: 03117/51 71, Fax DW: 17

Mail: [info@steirischursprung.at](mailto:info@steirischursprung.at)

Venue : <http://www.steirischursprung.at/index.php?id=10>

Three meeting points to reach together the restaurant:

- AEE Intec Office at 19:00
- Hotel Brauner Hirsch Office Desk at 19:15  
Fürstenfelder Straße 5-7  
Phone: +43-3112-2401  
Fax: +43-3112-2401-20  
E-mail: [office@hotel-brauner-hirsch.at](mailto:office@hotel-brauner-hirsch.at)
- In front of the restaurant "Erlebnisbrauerei Heustadt!" at 20:00 (see Annex for more details)

**Agenda for Tuesday September 11<sup>th</sup> (8:30am-4:00pm)**

**Working groups : block2**

08:30-08:40	Organization of Group discussions on Work Package level (5-6people max per item)	Daniel Mugnier	TECSOL
08:40-10:00	Meeting in parallel on Work Package level; Suggested topics for working groups are:		
	* <b>C6</b> : Collaboration with T45 for contracting models (Activity Leader : Moritz Schubert, SOLID)		
	* <b>A3</b> : Heat Rejection (Activity leader : Roberto Fedrizzi (EURAC))		
	* <b>D1/ D5</b> : Website / Updated specific training seminars (Activity Leader : Marco Calderoni (POLIMI))		

**10:00- 10:20 Coffee Break**

**Working groups : block3**

10:20-11:40	Meeting in parallel on Work Package level; Suggested topics for working groups are:		
	* <b>C5</b> : Labeling possibilities investigations (Activity Leader : Uli Jakob (Green Chiller))		
	* <b>D4/D6</b> : Guidelines for Roadmaps on Solar cooling / Outreach Report (Activity Leader : Uli Jakob, Green Chiller & Anita Preisler (AIT))		
	* <b>B1/C7</b> : System-Subsystem characterization & field performance assessment / Certification process definition for small systems (Activity Leader : Roberto Fedrizzi (EURAC))		

**Working groups : block4**

11:40-13:00	Meeting in parallel on Work Package level; Suggested topics for working groups are:		
	* <b>B2</b> : Good practice for DEC design and installation (Activity Leader : Tim Selke (AIT))		
	* <b>A1/A6</b> : Chiller characterization / State of the art on new collector & certification (Activity leader: POLIMI)		
	* <b>C3</b> : Selection & standardization of best practice solutions (Activity Leader : Romain Siré (TECSOL))		

**13:00 -14:00 Lunch Break at AEE Intec in a room beside the meeting room**

**14.00 – 16.00 Plenary & overall**

14.00-14.20	Subtask A : Report on working group items; planning of next steps; distribution of work; action items	Marco Calderoni	POLIMI
14.10-14.40	Subtask B : Report on working group items; planning of next steps; distribution of work; action items	Alex Morgenstern	FhG ISE
14.40-15.00	Subtask C : Report on working group items; planning of next steps; distribution of work; action items	Stephen White	CSIRO
15.00-15.20	Subtask D : Report on working group items; planning of next steps; distribution of work; action items	Uli Jakob	Green Chiller
15.20-16.00	General items, next meetings, miscellaneous	Daniel Mugnier	TECSOL

16 :00 End of Task 3<sup>rd</sup> expert meeting

**Common internal Workshop with Task 45 & Task 49 on Large solar systems (district heating and cooling) : draft program see annex**

**16.00-17.30 Transfer from Gleisdorf to city of Graz by bus/car/taxi  
(Bus available in option to go from Gleisdorf to Graz)**

**17.30-19.30 Join Discussion with IEA SHC Task 45 / Task 49 (in Graz, Hotel Paradies):**  
Common discussion on Large heating and cooling database, Contracting models & Cross cutting applications (district/process/cooling).

Location :

Hotel Paradies (not close to the train station)  
Straßganger Straße 380 b  
8054 Graz - Straßgang  
Tel.: 0043 (0) 316/28 21 56-0  
Fax: 0043 (0) 316/28 21 56-6  
info@hotelparadies.at  
www.hotelparadies.at

**Agenda for Wednesday-Thursday-Friday September 12-13-14<sup>th</sup>**

- **Gleisdorf Solar conference**

The conference languages are English and German with simultaneous translation.  
The presentations are followed by a technical and a poster exhibition.

**As Task 48 member we can offer you to participate with a reduced conference fee as an AEE member.**

For registration and more information please click here: [www.aee-intec-events.org](http://www.aee-intec-events.org)

See keynote summary in annex and program online in Task 48 website at <https://www.iea-shc.org/task48/events/meeting-03/index.html>

## Annex : Meeting Participant list (registered on 07/09)

	First Name	Last Name	Organization	Address	Town	Country	Email Address	Arrival date	Departure date	Participation to Gleisdorf Solar
1	Anita	Preisler	AIT Austrian Institute of Technology	Giefinggasse 2, 1210	Vienna	Austria	anita.preisler@ait.ac.at	10-sept.-12	12-sept.-12	YES
2	Tim	Selke	AIT Austrian Institute of Technology	Giefinggasse 2, 1210	Vienna	Austria	tim.selke@ait.ac.at	10-sept.-12	14-sept.-12	YES
3	Daniel	Neyer	University Innsbruck	Technikerstr. 13	Innsbruck	Austria	daniel.neyer@uibk.ac.at	9-sept.-12	14-sept.-12	YES
4	Alexander	Thür	University Innsbruck	Technikerstr. 13	Innsbruck	Austria	alexander.thuer@uibk.ac.at	9-sept.-12	14-sept.-12	YES
5	Marco	Calderoni	Polimi	via Lambruschini 4	20156 Milano	Italy	marco.calderoni@polimi.it			
6	Patrizia	Melograno	Polimi	via Lambruschini 4	20156 Milano	Italy	patrizia.melograno@polimi.it			
7	Martin	Helm	ZAE Bayern	Walther-Meissner-Strasse 6	Garching	Germany	helm@muc.zae-bayern.de	9 sept.-12	11-sept.-12	NO
8	Manuel	Riepl	ZAE Bayern	Walther-Meissner-Strasse 6	Garching	Germany	riepl@muc.zae-bayern.de	9 sept.-12	11-sept.-12	NO
9	Werner	Pink	PINK GmbH	Bahnhofstrasse 22	Langenwang	Austria	w.pink@pink.co.at	10-sept.-12	11-sept.-12	YES
10	Roberto	Fedrizzi	EURAC	viale Druso, 1	Bolzano	Italy	roberto.fedrizzi@eurac.edu	9-sept.-12	13-sept.-12	YES
11	Clemens	Pollerberg	Fraunhofer UMSICHT	Osterfelder Straße 3	Oberhausen	Germany	Clemens.Pollerberg@umsicht.fraunhofer.de	10-sept.-12	11-sept.-12	NO
12	Michael	Joemann	Fraunhofer UMSICHT	Osterfelder Straße 3	Oberhausen	Germany	Michael.Joemann@umsicht.fraunhofer.de	10-sept.-12	12-sept.-12	YES
13	Zheng	Ren	Shuangliang Eco-Energy Systems	Xili Road 88#	Ligang Town, Jiangyi	China	tonyrenz@gmail.com	Sept, 9th	Sept, 12th	
14	Bettina	Nocke	AEE INTEC	Feldgasse 19	Gleisdorf	Austria	b.nocke@aee.at			YES
15	Daniel	Mugnier	TECSOL SA	105 av Alfred Kastler - Tecno	Perpignan	France	daniel.mugnier@tecsol.fr	Sept, 9th	sept, 14th	YES
16	Khalid	Nagidi	Energy Management Consulting Group	844 Oakfield Ave, Suite 101	Wantagh	USA	khalid.nagidi@energymcg.com	9-sept.-12	13-sept.-12	YES
17	Uli	Jakob	Green Chiller	Stendaler Str. 4	Berlin	Germany	uli.jakob@greenchiller.de			NO
18	Björn	Nienborg	Fraunhofer ISE	Heidenhofstraße 2	79110 Freiburg	Germany	bjoern.nienborg@ise.fraunhofer.de	10.09.	14.09.	YES
19	Jochen	Döll	Fraunhofer ISE	Heidenhofstraße 3	79110 Freiburg	Germany	jochen.doell@ise.fraunhofer.de			
20	Alexander	Morgenstern	Fraunhofer ISE	Heidenhofstraße 4	79110 Freiburg	Germany	alexander.morgenstern@ise.fraunhofer.de	10.09.	14.09.	YES
21	Antoine	Frein	Polimi	via Lambruschini 4	20156 Milano	Italy	antoine.frein@polimi.it	9-sept.-12	12-sept.-12	NO
22	Romain	Siré	TECSOL	105 av Alfred Kastler - Tecno	Perpignan	France	romain@tecsol.fr	09 sept 2012 (still not sure)	12 sept 2012 (still not sure)	
23	Kazuyuki	Makita	Kawasaki Thermal Engineering	1000, Aoji-cho	kusatsu-city, Shiga	Japan	makita_k-krk@corp.khi.co.jp	9-sept.-12	15-sept.-12	YES
24	Hilbert	Focke	ASIC	Roseggerstr. 12	Wels	Austria	focke.hilbert@asic.at	10-sept.-12	11-sept.-12	NO
25	Mathias	Safarik	ILK Dresden	Bertolt-Brecht-Allee 20	Dresden	Germany	mathias.safarik@ilkdresden.de	9-sept.-12	11-sept.-12	NO
26	Stephen	White	CSIRO	PO Box 330	Newcastle	Australia	stephen.d.white@csiro.au	9th Sept	12th Sept	NO
27	Dirk	Pietruschka	zafh.net	Schellingstraße 24	70174 Stuttgart	Germany	dirk.pietruschka@hft-stuttgart.de	10.09.	12.09.	NO
28	Christian	Zahler	Industrial Solar GmbH	Emmy-Noether-Straße 2	79110 Freiburg	Germany	christian.zahler@industrial-solar.de	5.9.	14.9.	YES
29	Matthias	Schick Tanz	Fraunhofer ISE	Heidenhofstr. 2	79110 Freiburg	Germany	matthias.schickanz@ise.fraunhofer.de	10-sept.-12	11-sept.-12	NO
30	Dan	Rowe	CSIRO	PO Box 330	Newcastle	Australia	stephen.d.white@csiro.au	9th Sept	12th Sept	NO
31	Moritz	Schubert	SOLID	Puchstr. 85	Graz	Austria	m.schubert@solid.at			
32	Sergio	Pintaldi	CSIRO-University of Trieste	via marcantoni 9	Conegliano	Italy	sergio.pintaldi@gmail.com	9-sept.-12	12-sept.-12	NO
33	Christian	Schweigler	ZAE Bayern	Walther-Meissner-Strasse 6	Garching	Germany	schweigler@muc.zae-bayern.de			

(in grey : to be confirmed)

## LOGISTIC INFORMATION AND MEETING PLACE:

**Rosa Stranzl's (AEE) phone number:** +43 (0)3112 5886-127 - E-Mail: [r.stranzl@aee.at](mailto:r.stranzl@aee.at)

AEE - Institute for Sustainable Technologies

Feldgasse 19  
A-8200 Gleisdorf

Ph.: 0043-3112-5886  
Fax: 0043-03112-5886-18  
E-mail: office @ aee.at  
Internet: [www.aee-intec.at](http://www.aee-intec.at)



### **How to find us**



### **GPS coordinates:**

N 47° 06,568'  
E 15° 42,562'

**Train:** Approximately 15 min walk from the train station in Gleisdorf

**Car:** A2 - Motorway exit "Gleisdorf West"

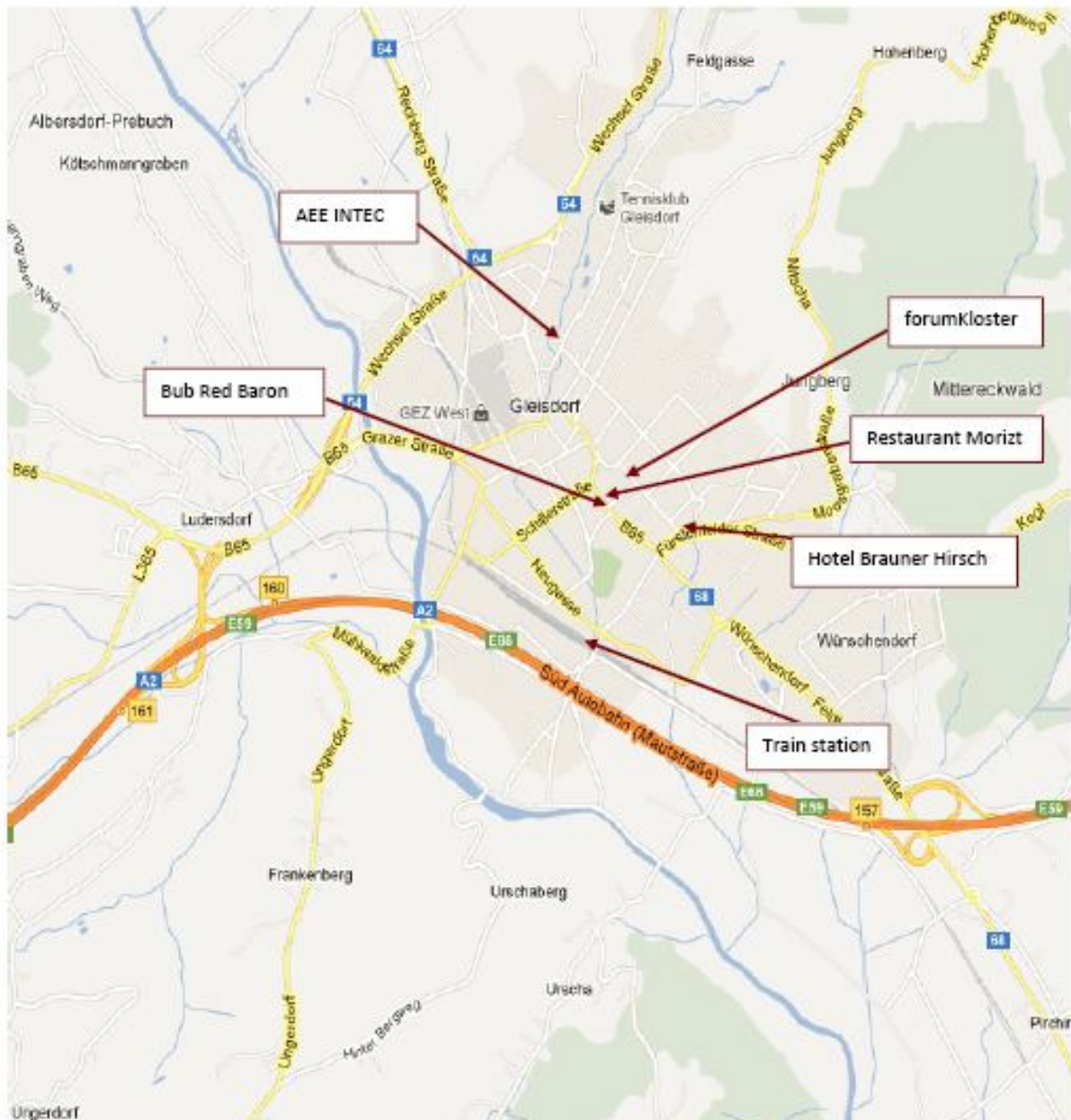
B54 direction "Hartberg Weiz"

after approx. 1.5 km turn right towards "Gleisdorf-Zentrum" ; after 500 meters after the red cross house ("Roten Kreuz"), turn left on to Feldgasse after 50 meters you will find us on the left hand side of the street.

**Final version – 07/09/2012**

Gleisdorf is located in Styria (South East of Austria, close to Graz).

**GLEISDORF MAP and main locations related to the meeting.**







INTERNATIONAL CONFERENCE  
on solar thermal energy

## GLEISDORF SOLAR 2012

International Conference on Solar Thermal Energy

12<sup>th</sup> to 14<sup>th</sup> September 2012, Gleisdorf, Austria

At the international conference "Gleisdorf SOLAR 2012" top-class experts present the current developments of the use of solar thermal energy. Breaking news of Gleisdorf SOLAR 2012 are large scale solar thermal systems. The following **key note** presentations gives an overview about further topics:

### **EC Support to Renewables for Heating and Cooling, including the Solar Thermal Sector**

Josè Riesgo, European Commission, DG ENERGY, Brussels, BE

### **The IEA Solar Heating and Cooling Roadmap**

Paolo Frankl, International Energy Agency, Paris, FR

### **Transforming Austria: Solar Technologies – Research2Market**

Theresa Vogel, Austrian Climate and Energy Fund, Vienna, AT

### **Status and New Developments in the Field of Compact Thermal Storages**

Wim van Helden, Renewable Heat B.V., Schagen, The Netherlands and AEE INTEC, Gleisdorf, AT

### **Challenges and Opportunities for the Use of Polymeric Materials in Solar Thermal Applications**

Reinhold W. Lang, Johannes Kepler University, Linz, AT

### **New Developments and Opportunities of Hybrid Systems based on Solar Thermal Systems**

Wolfram Sparber, EURAC Research, Bozen, IT

### **Industrial Process Heat**

Christoph Brunner, AEE INTEC, Gleisdorf, AT

### **Collector concepts beyond state-of-the-art – opportunities and challenges**

Michael Hermann, Fraunhofer Institute for Solar Energy Systems, Freiburg, DE

### **Status and Challenges in Solar Cooling and Air Conditioning**

Daniel Mugnier, TECSOL SA, Perpignan, FR

## AGENDA

Task 48 / Task 49 / Task 45 - get together workshop

Tuesday September 11<sup>th</sup> 2012, 17.30-20.30, Graz, Austria

Hotel Paradies- Straßganger Straße 380 b - 8054 Graz - Straßgang

### **Common discussion on Large heating and cooling database, Cross cutting applications (district/process/cooling)**

*Latest developments, examples, common potential work and links*

Target audience: Task 45, Task 48 and Task 49 experts

- 17.30: Introduction, Nielsen OA Task 45, Mugnier OA Task 48
- 17.40: Presentation of Task 48 status, Mugnier and subtask leaders
- 17.50: Presentation of Task 45 status, Nielsen and Subtask leaders
- 18.00 : Presentation of Task 49 status, Brunner OA Task 49
- 18.10 : Presentations of latest developments in the following activities:
  - Table of existing available chillers compatible with solar on the market and review of relevant incentive schemes on solar cooling, Daniel Mugnier / Stephen White Task 48
  - Large solar heating and cooling database : Jan Olof Dalenback / Sabine Putz, Task 45
  - Solar process heat in the agro food industry : Christoph Brunner, Task 49

Max 19.00: Discussion with all participants:

1. what are the common work done between the 3 tasks on the 3 topics
2. how to strengthen cooperation between T45, T48 and T49?
3. next steps if needed ?

20.30 at latest: End of workshop

*This is an informal workshop where all contributions during the discussion on the 3 proposed topics are welcome.*

*Task 45: Large Systems*

<http://www.iea-shc.org/task45/>

*Task 48: Quality Assurance and Support Measures for Solar Cooling*

<http://www.iea-shc.org/task48/index.html>

*Task 49 : Solar process heat for production and advanced applications*

<http://www.iea-shc.org/task49/>

## **TRANSPORTATION LINKS AND SCHEDULE BETWEEN GRAZ and Gleisdorf.**

In case of being located in a hotel in Graz, 2 possibilities:

- to take the bus, it needs about 35 minutes, please see the timetable
- to take the train (S3),

The price for the bus one way is EUR 13,5, a ticket with 10 zones is EUR 18,5, you need 3 zones for Graz-Gleisdorf

It is very easy to come from the bus station "Jakominiplatz" to all other locations in Graz